2005

Report of the
Auditor General of Canada
to the House of Commons

APRIL

A Message From the Auditor General of Canada

Main Points

Office of the Auditor General of Canada

The April 2005 Report of the Auditor General of Canada comprises six chapters, and a Message From the Auditor General of Canada and Main Points. The main table of contents is found at the end of this publication.

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A Message From the Auditor General of Canada

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Auditor General of Canada
Vérificatrice générale du Canada

To the Honourable Speaker of the House of Commons:

I have the honour to transmit herewith my second Report of 2005 to the House of Commons, which is to be tabled in the House in accordance with the provisions of subsection 7(5) of the *Auditor General Act*.

This Report includes an addendum containing verbatim copies of environmental petitions and ministers' responses received under the *Auditor General Act* from 1 July 2004 to 4 January 2005.

Sheila Fraser

Sheila Fraser, FCA
Auditor General of Canada

OTTAWA, 5 April 2005

Sheila Fraser, FCA
Auditor General of Canada

A Message From the Auditor General of Canada

Accountability for security and intelligence activities: A new challenge for Parliament

Security and intelligence activity in the Government of Canada has expanded considerably in recent years, particularly since September 11, 2001. The federal government now spends more than $1 billion a year on these activities.

Parliament needs objective information to determine whether public funds have been spent properly and managed well. For most activities of government, it is my job as Auditor General to provide that information in our performance audit reports.

Security and intelligence activities, however, create special problems for our normal process of providing information to Parliament and, once tabled, to the wider public. By their very nature, many aspects of security and intelligence activities must remain secret.

This dilemma became very real to us when we were preparing one of the chapters in this report. Chapter 2 on the 2001 anti-terrorism initiative deals with certain aspects of the air passenger security system managed by Transport Canada and the Canadian Air Transport Security Authority.

To determine the effectiveness of the passenger security system, Transport Canada uses a measure called the infiltration failure rate. This is the rate at which security screeners fail to detect "threat objects" such as simulated knives, simulated bombs, and simulated guns when inspectors attempt to carry them past the security screener.

This information has been classified as secret and, accordingly, we may not report it. As Auditor General, I must respect the government's information security regime.

Parliament, however, faces a challenge in holding the government to account for security and intelligence activities. For example, passenger screening at airports involves weighing considerations such as how much security is desired, how long passengers are willing to wait, how intrusive a screening process they are prepared to accept, and what costs passengers and the rest of society are prepared to pay. While decisions on how to balance these questions are up to the government, it is up to Parliament to hold the government accountable for those decisions on behalf of Canadians.

How can Parliament scrutinize the spending and performance of security and intelligence activities if key information must be kept secret? How will members of Parliament conduct an informed debate about security and intelligence matters?

One possible solution would be to create a mechanism such as a committee of Parliament, bound to secrecy and acting on behalf of the whole, that could receive reports containing classified information from security and intelligence agencies—perhaps in the form of secure annexes to their reports on plans and priorities and their departmental performance reports. This committee could also receive information from organizations such as the Security Intelligence Review Committee and the Office of the Auditor General, charged with scrutinizing these agencies' activities on behalf of Parliament.

Indeed, we understand that the government is contemplating the creation of such a mechanism, modeled somewhat on the United Kingdom's practice. We encourage the government to move expeditiously on this. Security and intelligence have become a significant part of the federal government's activities and should receive the informed attention of Parliament.

As it happens, four of the chapters in this Report cover government activities that have implications for national security. Our audits of the 2001 anti-terrorism initiative, the Passport Office, and Natural Resources Canada looked at issues of national security or emergency preparedness. National Defence's C4ISR initiative—which aims to use new information and communication technologies to improve military decision-making—has implications for national security as well, although our audit focussed on how the initiative was managed.

Anti-terrorism initiative

Our chapter on the government's 2001 anti-terrorism initiative focusses on emergency preparedness programs, the security of air transportation, and some elements of marine security. We reported on other aspects of national security in March 2004.

Canada's ability to respond to civil emergencies and acts of terrorism depends on the ability of federal, provincial, and municipal governments to effectively co-ordinate their procedures, their equipment purchases, and their training. We found that emergency response strategies are not integrated and are poorly co-ordinated.

In many cases, spending on emergency preparedness was not guided by a thorough analysis of threats and risks; as a result, funds to strengthen emergency response capacities have been poorly allocated. For example, the opportunity was not taken to create a national pool of equipment that is compatible and interoperable. And despite the need for 6,000 people trained to respond to chemical, biological, radiological, and nuclear events, fewer than 200 have been trained so far.

A new department, Public Safety and Emergency Preparedness Canada (PSEPC), has replaced the Office of Critical Infrastructure Protection and Emergency Preparedness. Without the needed authorities, structures, and resources, without strong and clear support from all areas of the federal government, PSEPC will be years away from meeting the goals the government has set for it. Meanwhile, the gaps in Canada's ability to respond to emergencies will remain.

After the tragic events of September 11, 2001, the government created the Canadian Air Transport Security Authority to manage aspects of air travel security that needed to be radically expanded.

Some key elements of air transport security are moving ahead well—for example, installing the explosives detection systems that screen passengers and baggage, which has cost some $1 billion. Other elements, however, are working less well. Transport Canada has expanded its security inspection service and improved training, but without a documented risk analysis we could not determine whether the number of inspectors and the frequency of inspections are adequate.

In marine security programs, we found that spending has been based on an adequate threat and risk analysis and funds have been allocated to high-priority areas. However, there are still gaps in marine security—for example, in the coverage provided by the radar system designed for continuous surveillance of Canada's coastal areas. How the gaps in coverage will be filled, and at what additional cost, has yet to be determined.

Passport services

To travel with ease across international borders, Canadians need an official travel document that is secure and universally respected. Since September 11, 2001, the Passport Office, responsible for issuing the 24-page blue document that Canadians know so well, has faced new demands and heightened expectations for passport security. Our audit found several areas that need urgent attention.

In our view, significant improvements are necessary in the processes for determining whether documents submitted with an application are authentic and entitle the applicant to receive a passport. Passport "watch lists" are incomplete and often not updated in a timely way, because the Passport Office has not found ways to obtain data automatically from other government sources. Management's monitoring of some security functions is not sufficient to ensure that they are carried out properly.

The Passport Office is struggling to find a balance between ensuring security and providing good service to clients. While it has established reasonable levels of service, its service standards do not take key security measures into account.

In 2001, the cost of a passport rose from $60 to $85, but the increase did not comply fully with Treasury Board policy. The Passport Office is not ready to implement the requirements of new user-fee legislation. It lacks reliable cost information, has not engaged clients in establishing service standards, and does not have a mechanism to resolve fee disputes.

At the time of our audit, the Passport Office did not have in place the management systems and practices it will need to meet future challenges. It needs to undertake a comprehensive risk assessment of all its operations, prepare an action plan, and closely monitor the plan's implementation.

Natural Resources Canada

Resource industries in Canada employ more than one million Canadians and constitute over half the economic base of some 600 rural and remote communities across the country. Clearly, Natural Resources Canada has an important role to play in advancing government priorities. At the same time, the Department must fulfill its statutory responsibilities.

To ensure that its departmental resources are allocated to critical priorities, Natural Resources Canada needs a corporate strategic plan that clearly sets out how it will achieve its goals. The plan must consider external threats and opportunities, available resources, and organizational strengths and weaknesses; it must spell out objectives, priorities, and expected results. The Department also needs a coherent approach to developing business plans for each of its sectors. Good governance and management processes are necessary at the corporate level to focus the Department's efforts.

Public safety is a strategic priority for all sectors of Natural Resources Canada—forests, earth sciences, energy, and mineral and metal resources. The Department acts as the federal lead in planning and co-ordinating the federal response to civil emergencies related to natural resources; this would include major power shortages or failures, forest fires, and mine disasters.

When we looked at the management of emergency preparedness across the Department, we found much room for improvement. The Department needs to use a more consistent approach to assessing risks across all sectors and ensure that appropriate emergency plans are established in all its areas of responsibility.

A key National Defence initiative

National Defence has undertaken a major initiative to improve the way it gathers, processes, and uses military information for command and control. It expects that by 2015 it will have invested close to $10 billion in the C4ISR initiative—Command, Control, Communications, Computers, Intelligence, Surveillance, and Reconnaissance—to help make this transformation in information technology happen.

Making command and control faster and more effective by providing better information for decision making is one goal of the initiative. Playing a meaningful role in operations with other countries such as NORAD and NATO partners means keeping pace with new military concepts and technology.

C4ISR is a complex and expensive initiative; our audit found that National Defence has made a good start toward implementing it. However, with $4 billion already spent on C4ISR projects, some elements that are key to success—such as common standards and definitions—are still not in place. Without them, the result could be duplicate or incompatible systems—and the excess costs this would imply.

National Defence recognizes that it needs to pursue C4ISR as a joint endeavour of its three services—Navy, Army, and Air Force—in order to take advantage of economies of scale and to achieve integrated systems that are fully interoperable. However, our audit found that the Department must do more to ensure that efforts are co-ordinated and that joint expectations are met.

Resource development in the North

Another chapter in this Report examines the role played by the federal government—in particular, Indian and Northern Affairs Canada—in the development of non-renewable resources in the Northwest Territories.

With the signing of land claims agreements in the Northwest Territories and the passage of the *Mackenzie Valley Resource Management Act* seven years ago, the federal government created a series of boards to manage the application and licensing process for resource development and to regulate land and water use for environmental protection. At the time, Indian and Northern Affairs Canada decided that the best course of action was to leave the boards to administer the process on their own. It is now time to re-examine this approach.

The Department has authority under the Act to provide certain direction to the boards, authority it has chosen not to exercise. Providing direction would ensure that necessary elements are in place for the smooth functioning of the process. These would include standards for water quality and guidelines for interpreting key terms in the legislation.

The continued absence of policy direction, the lack of appropriate accountability, and inadequate management have contributed to the uncertain and unstable climate for investment in non-renewable resources that hampers economic development in the Northwest Territories.

Departmental reporting on performance

Canadians want to know the value they are getting for their tax dollars and the difference government is making in their lives. To monitor government programs and services effectively, parliamentarians need to be provided with timely and accurate information about what government spends and what results it achieves. Good performance reports are a key means for both Parliament and Canadians to hold the government accountable.

Every fall, some 90 federal departments and agencies submit reports to Parliament on their performance. These reports outline departmental accomplishments at the end of the fiscal year against commitments made in the previous year's plans.

For some time, Parliament has sought to improve the quality of the information in these performance reports. And my Office has supported Parliament's efforts. In 1997 we examined the state of the government's reporting regime and found a basic but sound framework as a promising start for reporting. But our follow-up audit in 2000 concluded that little progress had been made in improving the quality of performance reports produced by departments.

In 2002 we presented a model for rating performance reports. We then applied our rating model to the reports of nine departments, and in 2003 we reported the results. While we identified some promising practices, overall we found that most reports did not measure up well against our model.

This is the second time we have used our model to rate a selection of performance reports—those of Environment Canada, Fisheries and Oceans Canada, and Natural Resources Canada, who were part of a project in 1995 to improve reporting. We looked at their progress over the last decade and then compared it with their progress since 2002. The results were disappointing.

Without greater effort by departments and greater scrutiny by parliamentary committees, it will likely take not years but decades to significantly improve the quality of performance reports. In my view, this rate of improvement is not good enough to give Parliament and Canadians the tools for effectively holding government departments and agencies accountable for their performance.

Main Points

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Natural Resources Canada
Governance and Strategic Management

Chapter 1

Main Points

1.1 Natural Resources Canada has been working on a number of significant issues. However, the Department does not have a corporate strategic plan that addresses its legislative mandate and government priorities, is communicated to staff, and serves to align sector business plans. It needs good governance and management processes at the corporate level to focus it efforts. It also needs to improve its strategic decision-making and governance processes to help ensure that horizontal issues are managed consistently across the Department.

1.2 The Department is the federal lead in developing civil emergency plans for co-ordinating the federal response to emergencies in a number of areas related to natural resources. We found that the Department's operating sectors did not use a coherent framework for assessing risk and that the Department does not have appropriate emergency plans in all of its responsibility areas.

Background and other observations

1.3 The Department is faced with an aging, specialized workforce. Yet, it does not have a clear understanding of the competencies and capacities of its current workforce and those that it will need to acquire. We also found that the Department's information management systems lack consistent data that would allow effective corporate oversight.

1.4 Natural Resources Canada generally meets its statutory obligations with respect to its reporting requirements under the *Report on the State of Canada's Forests Regulations* and the *Energy Efficiency Act*. The Department needs to establish a more rigorous process that could help it move toward managing for results. Its performance reports need to address the Department's mandate and make its various frameworks for assessing performance easier to understand.

1.5 The Department has a very broad mandate, and it faces a number of significant challenges. These include funding levels that were cut by about 50 percent and then doubled over the last 10 years. Almost half of its funding is for short-term programs that expire in three to five years. In addition, many of its executives and technical specialists are eligible to retire. Recently, the Department has undertaken a number of important initiatives to deal with the issues it faces. It is important for the Department to have good strategic management systems and practices to ensure that it coherently deals with increasingly horizontal issues.

The Department has responded. Natural Resources Canada has indicated the actions it has under way or has planned to address the recommendations. Its detailed response follows each recommendation throughout the chapter.

National Security in Canada— The 2001 Anti-Terrorism Initiative

Air Transportation Security, Marine Security, and Emergency Preparedness

Chapter 2

Main Points

2.1 In December 2003—two years after it launched its anti-terrorism initiative—the government reorganized federal emergency planning, creating Public Safety and Emergency Preparedness Canada. The new department began an extensive reform program, but much remains to be done. Threat and risk analyses were not always used to guide the disbursement of funds by the previous agency to municipalities and provinces, resulting in poor allocation of funds. We found in a number of cases that programs do not appear to have achieved the intended results:

- In 2002 to 2004, federal funds were used to purchase equipment for first responders that did not have to be interoperable, losing a key opportunity to enhance the national capacity to respond to an emergency.
- The Office of Critical Infrastructure Protection and Emergency Preparedness, responsible for implementing a critical infrastructure protection initiative of Budget 2001, could not tell us what it had spent funds on. About one third of the funds allocated so far to this program may have lapsed.

2.2 Governance structures require continued attention. The government has established the Government Operations Centre to manage emergency responses, but the legislative and infrastructure frameworks remain uncompleted. Managing the budgets of projects that cut across several departments worked well in some cases, such as marine security and the CBRN Research and Technology Initiative, but failed in the cases of CBRN training for first responders and critical infrastructure protection. (CBRN refers to chemical, biological, radiological, or nuclear threats.)

2.3 The departments responsible for the CBRN Training Initiative estimated that about 6,000 first responders should be trained in how to intervene in and neutralize a serious event. We found that 200 people had been trained to this level so far under the CBRN Training Initiative.

2.4 Some key elements of the federal government's air transport security program are moving forward. The purchase and installation of explosives detection systems to screen passengers and baggage—an initiative by the Canadian Air Transport Security Authority (CATSA) at a cost of over $1 billion—are proceeding mostly as planned. Analyses of requirements and options were generally adequate.

2.5 Other elements, however, are working less well. Transport Canada told us it does not have a major problem with CATSA, but the Department has set no system-wide performance levels for CATSA and completed no assessments of its performance. The Department has not defined the sanctions it will use against CATSA if education and persuasion fail to get timely results.

2.6 Marine security programs have been based on an adequate threat and risk analysis. Implementing the Automated Identification System for ships encountered delays but is still expected to be completed by its original implementation date. The High Frequency Surface Wave Radar project, intended to provide continuous, real-time surveillance of Canada's coastal areas, represents an improvement in surveillance but will not provide full coverage. The government is acquiring fewer radar sets than considered necessary for complete coverage, and the radar will have a more limited range than originally forecast. The result will be gaps in coverage, with significant additional costs if full coverage is to be attained.

2.7 The government's implementation of the International Ship and Port Facility Security Code, necessary to keep Canadian ports and ships in the business of world trade, is generally going well. However, some certificates were issued on an interim basis, and security inspectors may be pressed to complete the inspections required for new certificates by the renewal deadline.

Background and other observations

2.8 This is the second of two audit reports on the federal government's anti-terrorism initiative announced in the 2001 Budget after the September 11 attacks on the United States. The government initially announced $7.7 billion for this initiative and subsequently added another $690 million.

2.9 Our first report, published in March 2004, addressed budget management, the allocation of funds, monitoring of expenditures, intelligence issues, and some aspects of air and border security. This chapter addresses air transportation security, elements of marine security, and emergency preparedness programs.

The departments and agencies have responded. In general, the organizations have agreed with our recommendations, although commitments toward remedial action remain vague in some cases. We found the response from Public Safety and Emergency Preparedness Canada to be positive, as the Department is already moving ahead in some areas.

Passport Office
Passport Services

Chapter 3

Main Points

3.1 The Passport Office is struggling to meet increasing security expectations and demands for service. Significant improvements are necessary in the processes for determining passport entitlement. The Office is currently unable to fulfill all of its responsibilities under the Canadian Passport Order. Its watch list is deficient and often not updated in a timely fashion because the Office has not found ways to automatically obtain data from other government sources. Management does not sufficiently monitor some key security functions to ensure that they are properly carried out.

3.2 The Passport Office has established and achieved its published service standards for clients. However, costs are increasing and are not tied to service standards. Although it has reported on the performance of certain major service standards, there is limited performance information about security measures. At the time of the audit, the Passport Office did not have the management systems and practices that would prepare it to meet future challenges effectively.

3.3 The Passport Office and Foreign Affairs Canada did not meet the requirements for ongoing consultation on service standards and how they relate to passport and consular fees. The Passport Office also lacks reliable cost information related to published service standards.

Background and other observations

3.4 The Passport Office is a Special Operating Agency reporting to Foreign Affairs Canada. It finances its operations from the user fees it collects. The Office issued about 2.5 million passports in 2003–04. It collected revenues of $158 million that it used to finance its operations and had a net income of $9 million. It also collected $54 million in consular fees for deposit to the Consolidated Revenue Fund. The Passport Office is responsible for enforcing the Canadian Passport Order in issuing various travel documents. Issuing the 24-page blue passport, which in 2005 rose in cost from $85 to $87, makes up about 98 percent of Passport Office business.

The Passport Office has responded. In its response to each recommendation throughout the chapter, the Passport Office indicates the action it has taken, is taking, or plans to take to address the recommendation.

National Defence

C4ISR Initiative in Support of Command and Control

Chapter 4

Main Points

4.1 National Defence estimates that by 2015 it will have invested almost $10 billion on projects to improve the way it gathers, processes, and uses military information. This is needed to provide commanders with better information for decision making in order to exercise faster and more effective command and control in both joint and combined operations. It is also to allow National Defence to keep up with the progress and changes being made by allies. This is a key part of the transformation of the Canadian Forces into the 21st century. The Command, Control, Communications, Computers (C4), Intelligence, Surveillance, and Reconnaissance (ISR) initiative is a strategy to help make this information-technology transformation happen.

4.2 The Department has made a good start in managing C4ISR and has put in place some guidance and methodology to help it achieve its goals. However, some of the key elements required to ensure successful implementation of the C4ISR initiative are not yet in place. National Defence must put a priority on producing its joint C4ISR doctrine, a concept of operations, a clear definition of interoperability, and a common understanding of what C4ISR means to better guide its development. National Defence has already invested about $4 billion of the almost $10 billion planned for projects that have a C4ISR component; however, without these key elements the Department is at risk of developing non-compatible or duplicate systems.

4.3 C4ISR is complex and expensive and constitutes a significant investment by the Department in improving the way it collects, processes, and uses information for operations, in particular joint and combined operations. The Department recognizes that the individual services cannot afford to pursue, nor should they pursue, C4ISR separately. The Navy, Army, and Air Force must work jointly to take advantage of economies of scale and achieve fully interoperable and integrated systems. While the Deputy Chief of Defence Staff is responsible for joint operations, the individual services have traditionally been responsible for generating what they need for those operations; therefore, C4ISR-related development has tended to be pursued along individual service paths rather than jointly. As well, existing joint-requirements committees need clearer authority and a stronger role in project approval to ensure that activities co-ordinate and meet joint expectations.

4.4 To have a C4ISR initiative that is affordable and achievable, National Defence needs mechanisms that help it choose which projects to pursue and to guide how systems will be developed. The Department is using a methodology that helps it define and refine C4ISR needs over time and has begun working on a common approach to designing its systems to meet those needs. However, projects already under way or being developed have not followed a common design approach and need to be reviewed to ensure they still meet the Department's intent. Without this adherence to a common approach, the Department has no assurance that its systems will converge and integrate as planned. Both a common design approach—or enterprise architecture—and a review of all projects need to be completed if the Department is to move forward in a structured, efficient, and disciplined way.

Background and other observations

4.5 The goal for the Canadian Forces, like other militaries around the world, is to improve the way it collects, analyzes, disseminates, and shares information gathered through C4ISR means to provide commanders with trusted and relevant information for decision making. Militaries are putting renewed efforts into C4ISR because of the opportunities information technology provides to enhance their own command and control.

4.6 In December 2003, the Department of National Defence released its C4ISR Command Guidance and Campaign Plan document to provide the Canadian Forces with high-level guidance and an integrated approach to develop and transform the capability into one that supports Forces-wide command and control into the 21st century.

4.7 By 2008, the Department wants to achieve its first C4ISR timeline and to have completed three overall phases—concept development, consolidation of projects and initiatives, and initial transformation; these involve the creation of an information-based culture and a network-enabled organization.

4.8 Our 1994 Report, Chapter 25, Information Technology recommended that command and control systems be able to interoperate in joint and combined operations, which the Department accepted as a mandatory requirement. The Information Technology Infrastructure and the Canadian Forces Command and Control Information System were both actively addressing these requirements. The Department acknowledged that joint interoperability had not received a high priority in these activities until the recent past. Nevertheless, our 1996 follow-up chapter concluded that the interoperability of command and control communication systems needed further development for joint and combined operations.

4.9 In our 1998 Report, Chapter 3, Equipping and Modernizing the Canadian Forces, we reported that, as far back as 1994, the Army had not kept pace with technology to modernize its equipment; this left it vulnerable to threats in low-level and mid-level operations. Some of those problems have since been corrected, but some have not. For example, National Defence has been working on implementing an Army communications system, which was to be completed by 2001 and was to be fully interoperable with other Canadian Forces command and control systems. By 2004, however, this was still not fully operational.

The Department has responded. The Department has indicated the action it has taken or intends to take to address the recommendations. Its detailed response follows each recommendation throughout the chapter.

Rating Selected Departmental Performance Reports

Chapter 5

Main Points

5.1 We assessed the quality of the departmental performance reports of three departments—Environment Canada, Fisheries and Oceans Canada, and Natural Resources Canada—to determine whether progress had been made in improving the quality of their reports against our criteria. In assessing the departments' performance reports against our rating model, we found that the quality of the reports had improved marginally, at most, over the two-year period between 2002–03 and 2003–04. Over the nine-year period, between 1995–96 and 2003–04, we found that two departments had achieved some modest improvements while the other department showed mixed results. Despite these modest improvements in performance reporting over the nine years, the latest performance reports still fall short of our criteria for good-quality reporting.

5.2 We found that most of the performance reports provide a good overview of each department's organizational context and planned strategic outcomes. However, performance expectations are not always clear and concrete, and the information does not necessarily focus on program results. Furthermore, the reported results are not always balanced and supported by data sources and data limitations. As well, the reports provide little evidence that performance information is used to make decisions about improving program results in future years.

5.3 While we cannot generalize from the results of rating three reports in each of three years to trends across all government departments, our findings continue to leave us as concerned about the overall quality of reporting as we were in our previous audits and studies. Based on these findings, it is reasonable to suggest that, without greater effort by departments and scrutiny by parliamentary committees, any significant improvements in the quality of performance reporting may take decades rather than just a few years. In our view, this rate of improvement is not good enough for parliamentarians and Canadians to be able to hold departments and agencies to account for their performance.

Background and other observations

5.4 Parliament holds government accountable for spending in the previous year, influences future plans and priorities, and approves expenditures for the upcoming fiscal year. Parliamentarians should rely on performance reports to keep informed about the performance of the government on key issues. They should also use these reports to hold ministers to account for departmental spending. As well, Canadians want to know if their taxes were spent where parliamentarians intended. They also want to know if they received good value from their government in return for their taxes. Consequently, effective accountability to parliamentarians and Canadians depends in large part on good-quality performance reporting.

5.5 In response to this need, Parliament and the government have sought to improve the quality of departmental performance reporting for some time. For example, Part III of the Estimates was created in 1981 and then separated into planning and reporting documents on a pilot basis in 1995 and permanently in 1997.

5.6 Our Office has also been concerned about the quality of performance reporting. We have reflected this concern through our audits since at least 1988 when we found clear shortcomings while also noting some improvements. In 2000 we examined the quality of departmental performance reports and concluded that federal departments' and agencies' progress in improving the quality of their performance reporting to Parliament was disappointing.

5.7 To assist us in our subsequent work, we developed a formal set of criteria for good reporting and presented it in 2002 as a model for rating departmental performance reports. In the following year, we reported on the results of applying this rating model to the departmental performance reports of nine departments. While we identified some promising practices, together with many challenges, overall we found that the reports did not measure up against our model as well as we had expected.

5.8 This is the second time that we have used our model to rate a selection of performance reports. However, it is the first time we have compared a department's reports over one or more periods to assess progress in improving the quality of reporting. Overall, we found that progress in improving performance reporting to Parliament continues to be a challenge for the three departments, even after almost a decade of effort.

The government has responded. The government has responded to our observations and informs us that it will continue its efforts to improve performance reporting across government departments.

Indian and Northern Affairs Canada

Development of Non-Renewable Resources in the Northwest Territories

Chapter 6

Main Points

6.1 Non-renewable resources offer enormous potential for economic development in the Northwest Territories (NWT). Yet the investment climate for this development is uncertain, in part because Indian and Northern Affairs Canada has not adequately managed its role in the process that considers development projects.

6.2 This includes not providing guidance on some of the ambiguous terms in the governing legislation or on establishing water standards permitted by legislation. It also includes not requiring boards to be accountable for managing their role in the process without impinging on the decisions they take as quasi-judicial bodies.

Background and other observations

6.3 Our audit examined how well Indian and Northern Affairs Canada (INAC) has managed its responsibilities that form part of the application and licensing process for the development of non-renewable resources in the Northwest Territories.

6.4 With the signing of land claim agreements in the Northwest Territories and the passage of the *Mackenzie Valley Resource Management Act* (MVRMA), the federal government created a series of boards to regulate the use of land and water and protect the environment. When these boards were created, the Department felt that the federal government's best course of action was to leave the boards to administer the process on their own in order to ensure that the Aboriginal peoples of the NWT understood that the federal government was sincere in relinquishing control. That decision seven years ago has contributed to a regulatory environment that, today, needs strengthening.

6.5 As the federal government continues negotiating the transfer of responsibilities to the Northwest Territories, it is important for Canadians that the process for developing non-renewable resources that the NWT may inherit is well managed.

6.6 Furthermore, seven years since the passage of the Act, it is timely for the Department to re-examine its approach to managing the process and strengthen it in the areas described in this report to ensure that it is sufficiently robust to meet the challenges and realize the opportunities of the coming decade.

The Department has responded. Indian and Northern Affairs Canada agrees with all the recommendations and has committed to taking action to address the concerns we raise in this chapter.

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2005

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Chapter 1
Natural Resources Canada—
Governance and Strategic Management

Office of the Auditor General of Canada

The April 2005 Report of the Auditor General of Canada comprises six chapters, and a Message From the Auditor General of Canada and Main Points. The main table of contents is found at the end of this publication.

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Chapter

1

Natural Resources Canada

Governance and Strategic Management

All of the audit work in this chapter was conducted in accordance with the standards for assurance engagements set by the Canadian Institute of Chartered Accountants. While the Office adopts these standards as the minimum requirement for our audits, we also draw upon the standards and practices of other disciplines.

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Natural Resources Canada
Governance and Strategic Management

Main Points

1.1 Natural Resources Canada has been working on a number of significant issues. However, the Department does not have a corporate strategic plan that addresses its legislative mandate and government priorities, is communicated to staff, and serves to align sector business plans. It needs good governance and management processes at the corporate level to focus it efforts. It also needs to improve its strategic decision-making and governance processes to help ensure that horizontal issues are managed consistently across the Department.

1.2 The Department is the federal lead in developing civil emergency plans for co-ordinating the federal response to emergencies in a number of areas related to natural resources. We found that the Department's operating sectors did not use a coherent framework for assessing risk and that the Department does not have appropriate emergency plans in all of its responsibility areas.

Background and other observations

1.3 The Department is faced with an aging, specialized workforce. Yet, it does not have a clear understanding of the competencies and capacities of its current workforce and those that it will need to acquire. We also found that the Department's information management systems lack consistent data that would allow effective corporate oversight.

1.4 Natural Resources Canada generally meets its statutory obligations with respect to its reporting requirements under the *Report on the State of Canada's Forests Regulations* and the *Energy Efficiency Act*. The Department needs to establish a more rigorous process that could help it move toward managing for results. Its performance reports need to address the Department's mandate and make its various frameworks for assessing performance easier to understand.

1.5 The Department has a very broad mandate, and it faces a number of significant challenges. These include funding levels that were cut by about 50 percent and then doubled over the last 10 years. Almost half of its funding is for short-term programs that expire in three to five years. In addition, many of its executives and technical specialists are eligible to retire. Recently, the Department has undertaken a number of important initiatives to deal with the issues it faces. It is important for the Department to have good strategic management systems and practices to ensure that it coherently deals with increasingly horizontal issues.

The Department has responded. Natural Resources Canada has indicated the actions it has under way or has planned to address the recommendations. Its detailed response follows each recommendation throughout the chapter.

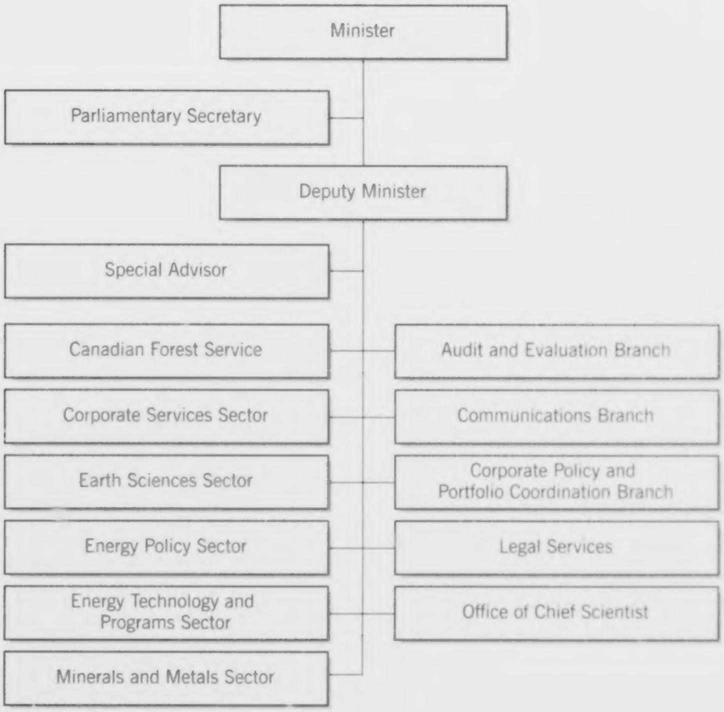
Introduction

1.6 Natural Resources Canada is a successor to the Department of Energy, Mines and Resources and an amalgam of previously separate and mainly science-based institutions, including the Canadian Forest Service, the Geological Survey of Canada, Geomatics Canada, and the Department of Mines.

1.7 The Department is organized along industry lines and comprises five operational sectors and a corporate services sector (Exhibit 1.1). It is the federal lead on forestry, energy supply and use, minerals and metals, and earth sciences, and it works closely with partners and stakeholders.

1.8 Canada's resource industries are a vital part of the national economy, accounting for more than $131 billion and more than 13 percent of the gross domestic product in 2002. Over one million Canadians are directly employed in the resource industries across Canada. Over 600 rural and remote communities, out of a total of nearly 6,000 such communities across Canada, rely on the resource industries for more than 50 percent of their economic base (Exhibit 1.2).

Exhibit 1.1 Natural Resources Canada organization chart


Minister
Parliamentary Secretary
Deputy Minister
Special Advisor
Canadian Forest Service
Audit and Evaluation Branch
Corporate Services Sector
Communications Branch
Earth Sciences Sector
Corporate Policy and Portfolio Coordination Branch
Energy Policy Sector
Legal Services
Energy Technology and Programs Sector
Office of Chief Scientist
Minerals and Metals Sector

Source: Natural Resources Canada

Exhibit 1.2 Communities that rely on forestry, energy, mining, and metal fabrication, 2001

Resource-reliant communities	Communities (approximate)
Forestry	300
Energy	75
Mining and metal fabrication	125
Communities that rely on a combination of the above-noted resource industries	165
Total	**665**

Source: Natural Resources Canada

1.9 The Department faces a number of major horizontal, international, economic, and policy issues that can be broken down into three categories: supply issues, market issues, and environmental issues (Exhibit 1.3). Horizontal issues are those that affect more than one sector or federal department.

Exhibit 1.3 Major departmental issues

Supply issues

- Offshore oil and oil sands development
- Northern energy and pipeline development
- Aging electricity supply infrastructure (including nuclear energy plants in Ontario, Quebec, and New Brunswick)
- Depleting reserves of seven major Canadian metals (for example, copper and zinc)
- Energy infrastructure protection
- Alternative energy and demand issues, including energy efficiency

Market issues

- Regulatory harmonization
- Softwood lumber and U.S. market access
- International market access
- Resource taxation

Environmental issues

- Climate change
- New, foreign, invasive forest pests

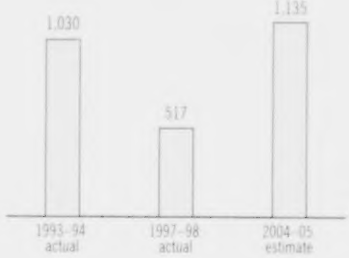
Source: Natural Resources Canada

Fluctuations in the Department's scientific workforce

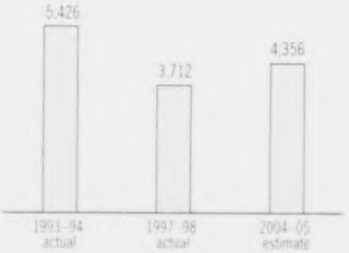
1.10 As a result of the government's program review cuts, the Department's expenditures were reduced by about 50 percent between 1995 and 1998, and its staff was reduced by about 30 percent. Reductions were distributed mainly among scientific (794) employees, management (79), and administrative (450) categories (Exhibit 1.4).

Exhibit 1.4 Departmental changes in expenditures and staffing

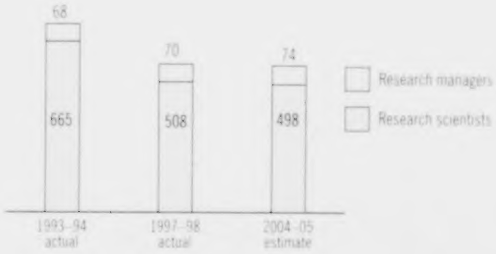
Expenditures ($ thousands)



Full-time equivalent staff



Research scientists and managers



Source: Natural Resources Canada

1.11 As of September 2004, about 70 percent of the Department's staff are engaged in science and related scientific activities, including 498 research scientists and 74 research managers. The Department spends about 74 percent of its budget (excluding statutory payments) on science and related activities. (Statutory payments of about $334 million comprised mainly transfers to provinces for offshore oil and gas development and contributions to employee benefit plans.) Following the government's program review, the Department focussed on its remaining in-house science activities, while maintaining some policy capacity and regulatory oversight.

1.12 The knowledge and expertise of Natural Resources Canada's workforce are vital to the effectiveness of its programming. Similar to many other knowledge-based organizations, the Department must confront the problem of an aging workforce.

Reductions in base funding and increases in sunset funding

1.13 The Department's resources have increased from the lower levels following program review. However, the increase in staff has been mainly the result of the introduction of temporary funding for special purpose and sunset programs. These programs have a short life-span, generally from one to five years. Natural Resources Canada estimates that these programs now comprise 62 percent of the Department's budget. Sunset programs have a number of impacts, including the following:

- Management attention is drawn from other work to manage the changing resources.
- It is often difficult or impossible to move scientific staff from one project to another in an unrelated field.
- Scientists are more difficult to recruit as they prefer to work for organizations with more assured funding.

Recent initiatives

1.14 In response to the challenges it faces, the Department has undertaken a number of important initiatives in the past two years.

- **Support services.** The Department completed a major study of support services (finance, procurement, information technology, communications, asset management, and human resources) and is in the process of implementing its recommendations. This involves the creation of a Shared Services Office to improve the effectiveness and efficiency of support services and to strengthen corporate administrative management.
- **Science management.** The Department created the Office of Chief Scientist in September 2003. It informed us that the Office is currently developing a vision document and an organizing architecture that will include governance structures, principles, guidelines, and management policies and processes for science and technology. The Department indicated that it is also considering theme-based networks as a means to

improve co-ordination of science and technology programs that address cross-cutting policy issues.

- **Information management.** The Department informed us that it has developed options for a departmental science and technology information system. Development of this system has been put on hold due to a Treasury Board decision on the potential development of a government-wide information system. In the meantime, the Department is developing a standardized template for the operational sectors to report science and technology information.

- **Human resources management.** Initiatives in the past year include the Policy Analysis Recruitment and Development Program. Through this program, the Department recruited university graduates to enhance its policy capacity.

The Department's legislation is broad

1.15 The Department's enabling legislation is set out in over 30 acts of Parliament. This legislative base has developed over more than 100 years. The four core acts are the *Department of Natural Resources Act*, *Resources and Technical Surveys Act*, *Explosives Act*, and *Forestry Act*.

1.16 The *Department of Natural Resources Act* sets out the main purposes of the Department. It requires the Minister of Natural Resources to

- co-ordinate, promote, recommend, and implement policies;
- assist in the development of Canadian scientific and technological capabilities;
- promote the development and use of remote sensing;
- develop codes and standards for surveys and natural resource products;
- gather, compile, analyze, co-ordinate and disseminate information;
- seek to enhance the responsible development and use of Canada's natural resources and the competitiveness of Canada's natural resources products;
- participate in the enhancement and promotion of market access;
- have regard for the sustainable development of Canada's natural resources and the integrated management thereof; and
- promote co-operation with governments and non-governmental organizations in Canada and internationally.

1.17 The remaining acts set out terms for energy policy; nuclear policy; management of Crown lands and boundaries; and regulation of the sale, use, and distribution of explosives; they also establish a foundation to fund sustainable development technology.

The Department has interpreted its role in different ways

1.18 In response to changing government priorities, the Department has focussed on different areas over time and interpreted its role as one or more of the following:

- knowledge provider, especially for the materials that compose Canada's earth;
- manager and promoter of science and technology;
- regulator;
- manager of developmental programs in the energy, forest, minerals, and metals sectors;
- investor in mega-energy projects; and
- promoter of energy efficiency.

1.19 Natural Resources Canada is responsible for developing and maintaining emergency plans related to a number of different areas. These include co-ordinating the federal response to energy shortages or major power failures (for example, the power outage of 14 August 2003 that affected Ontario and the Eastern United States), mine disasters, and emergencies associated with offshore oil and gas production.

1.20 The Department is jointly responsible with the National Energy Board for the federal role in the control and regulation of energy production, generation, processing, transmission, storage, sale, domestic distribution, and exports and imports. Indian and Northern Affairs Canada is responsible for the federal role in this area in the territories.

How Natural Resources Canada views its operations

1.21 Natural Resources Canada has the mandate to promote the sustainable development and use of Canada's mineral, energy, and forestry resources and to enhance the competitiveness of Canada's resources and products.

1.22 The Department's activities are extremely varied across its business lines. In particular, it deals extensively with three major sectors of the Canadian economy: energy, forestry, and mining. While there are common horizontal policy themes (for example, sustainability issues, regulatory issues, and climate change implications), the issues, opportunities, and challenges facing the three sectors are quite different from the perspective of

- commodity price cycles and markets associated with the sectors,
- their resource bases,
- the international orientation of the three sectors, and
- their stakeholder groups.

1.23 The Department works closely with industry and stakeholder groups associated with the three commodity sectors. Some of the specific initiatives that the commodity sectors have advanced include the following:

- **Canadian Forest Service**. The establishment of the Canadian Forest Innovation Council (with representation from industry and the provincial governments) and greater collaboration with provincial and territorial forestry ministers are intended to lead to more strategic and co-ordinated approaches to the forestry agenda.
- **Energy Policy Sector and Energy Technology and Programs Sector**. As part of the Energy Dialogue Mechanism, the Department is working closely with provincial officials and industry representatives to provide leadership on energy policy issues.
- **Minerals and Metals Sector**. The Kimberley Process brought together the governments of 50 countries, the diamond industry, and non-governmental organizations to curb the trade in conflict diamonds.

1.24 The fourth sector in Natural Resources Canada—the Earth Sciences Sector—provides unique and essential components of the science required to make informed economic, environmental, and social policy decisions for the current and future governance and development of Canada. In essence, the Sector serves as a science and information-based service provider to government and other stakeholders.

1.25 The Department's key planning challenge is to integrate the management of horizontal issues with sectoral strategies. Examples of horizontal policy issues that have received focus across the Department include the following:

- a framework for sustainable development;
- climate change mitigation and adaptation;
- regulatory affairs;
- innovation; and
- science and technology management.

1.26 Climate change has been a major focus of activity and new programs within the Department. Natural Resources Canada's role has been led by the Energy Policy Sector but has involved all sectors; the Department has also been part of a much larger government-wide effort, including shared planning and accountability systems.

1.27 The Department is supported in its horizontal operations by corporate units (including the Corporate Policy and Portfolio Coordination Branch, the Office of the Chief Scientist, and the Communications Branch) as well as horizontal management committees (for example, the Departmental Management Committee and the Strategic Policy Committee).

1.28 The Department's organization, planning activities, and management processes at the corporate level are structured to balance the Department's sector-specific responsibilities and activities with the need for sound management of horizontal policy issues. These processes include the following:

- Natural Resources Canada's corporate branches carry out broad planning and contextual strategic policy analyses that serve all the sectors.
- Each sector develops a tailored approach to strategic sectoral management and operations, consistent with its operational responsibilities and in keeping with the specific policy challenges and opportunities facing the sector.
- Horizontal departmental operations (including support services, science management, and human resource management) are also managed at the corporate level.
- Horizontal government-wide priorities (including climate change, the development of a sustainable development framework, regulatory reform, and water issues) are supported by both the sectors and the corporate branches.

Focus of the audit

1.29 Our audit objectives were

- to assess whether Natural Resources Canada's governance mechanisms, management systems, and practices at the strategic level are adequate to support its Department-wide policy development, research, program, and other activities; and
- to determine whether the Department appropriately assesses and reports to Parliament the results and impacts of its efforts and meets its statutory reporting obligations.

1.30 Our audit focussed on the governance and management practices of Natural Resources Canada's five operational sectors at the strategic level rather than the program level. Thus, we did not audit the Department's programs such as climate change; nor did we audit interdepartmental initiatives. In order to review strategic management across the Department, we selected emergency preparedness for further testing. This activity is part of public safety and security, one of the Department's five strategic outcomes.

1.31 We identified four lines of enquiry:

- strategic management and direction setting;
- integrated information management and decision making;
- aspects of human resources management; and
- performance measurement and reporting.

1.32 Some quantitative information in this chapter is based on data provided by Natural Resources Canada. We assessed these data through a process of analysis, comparison, and discussion. Unless otherwise indicated in this chapter, data provided by Natural Resources Canada should be treated as unaudited. More details on the audit's objective, scope, approach, and criteria are included in **About the Audit** at the end of the chapter.

Observations and Recommendations

Setting strategic priorities

1.33 Each of the Department's five operating sectors has unique characteristics that include legislative responsibilities, stakeholders, and key issues. We would not expect one overall integrated business plan to serve the needs of all sectors. However, we would expect the Department to have a corporate strategic plan to provide guidance to the sectors and to clearly explain the Department's overall strategic priorities to parliamentarians and stakeholders.

1.34 The Department faces a number of challenges, including

- a severe workforce reduction followed by a rapid increase,
- an aging workforce, and
- a significant amount of its resources dedicated to sunset programs that make staffing more difficult.

In these circumstances, it is important that the Department have good strategic planning to help it allocate its scarce resources and adapt to its changing environment (Exhibit 1.5).

Exhibit 1.5 Elements of a good strategic plan

A good strategic plan

- is consistent with mandate and government priorities;
- considers factors such as external environment, risks, options, stakeholders, available resources, organizational strengths and weaknesses, and potential impacts;
- analyzes risks, options, and proposed courses of action;
- sets out organizational vision, priorities, objectives, and expected results;
- is communicated to staff; and
- is implemented throughout the organization.

Strategic planning documents are inconsistent

1.35 Natural Resources Canada does not have a corporate strategic plan. Instead, it uses two classified documents, a 2004 briefing document and a Vision Paper, to identify its organizational vision, priorities, and direction. Members of the Department's management committee, including the heads of the operational sectors, helped develop these documents. However, since these documents are not available to staff and other stakeholders, we looked at other authoritative documents—the sustainable development strategies, sector business plans, and the reports on plans and priorities—to see if they set out strategies consistent with the classified documents and communicated these strategies to staff and other stakeholders.

1.36 The Commissioner of the Environment and Sustainable Development noted in October 2004 that Natural Resources Canada was among the departments that have often performed relatively well in senior leadership, with benefits including better sustainable development strategies and more decisive efforts to deliver on environmental commitments.

1.37 Sustainable development strategies are intended to influence change toward sustainable development. The Department's 2004 strategy was not intended to cover all areas of its responsibilities; therefore, in our view, the strategy cannot fulfill the role of a corporate strategic plan.

1.38 We found that each of the five operational sectors is responsible for establishing its own mission and ensuring it is consistent with relevant legislation and government direction. While this is necessary, the Department has no coherent approach for analysis across the sectors to ensure that they adequately address their legislative mandates or the priorities of Parliament, and to assist in the management of horizontal issues. As a result, sector mission statements did not state the results expected in coherent terms, with clear links to the Department's vision, legislated mandate, or government direction.

1.39 Our review found that one of the sector business plans had no mission statement, while others differed in what is expected, from "a provider of information" to "a sustainable development organization." A corporate strategic plan could help to provide a rationale to explain these differences.

1.40 We noted that one of the five operational sectors had systematically reviewed its legislative authorities to identify gaps, overlaps, and areas where it was not meeting its legislative requirements or where it was doing unnecessary work.

1.41 Government priorities can be derived from a variety of sources, such as the Prime Minister's mandate letter to the Minister, the Speech from the Throne, and budget documents. We found no consistency in the documents used by the five operational sectors to determine government priorities. Sector priorities were based on 10 different government documents from three different years. Three of the five operational sectors had determined individual strategic priorities, while two sectors had aligned their business plans to specific issues. As a result, there are inconsistencies in the 17 different strategic priorities formulated by the five operational sectors. For example, the Department's 2004 Sustainable Development Strategy states that sustainable development is central to its mandate. Thus, we would have expected the business plans of the five operational sectors to identify sustainable development as a priority and demonstrate how each sector would contribute to it. We found that only two of the five operational sectors' business plans referred to sustainable development. Public safety is the only common strategic priority identified across the Department.

1.42 Climate change is another key government priority relevant to the Department. Natural Resources Canada has many program initiatives related to climate change and has informed us that it is heavily involved in all aspects of this work—developing policy, facilitating stakeholder consultations, supporting international negotiations, and creating significant new knowledge capacity. An overall corporate strategic plan could help to clarify the importance of this initiative and other key government initiatives to the Department.

1.43 **Report on plans and priorities.** We compared the strategic outcomes reported in the Department's report on plans and priorities with the five operational sector business plans. Two of the five operational sectors have aligned their business plans with these strategic outcomes, but the other three have not. Each sector determines how it will contribute to the attainment of these strategic outcomes. Sector business plans need to demonstrate alignment with the strategic outcomes in the report on plans and priorities to show how they will be achieved.

1.44 Natural Resources Canada needs a consistent methodology and needs to establish common terms of reference for developing its strategic priorities for each sector. Doing so will help the sectors interpret the Department's mandate and the government's priorities.

1.45 **Recommendation.** Natural Resources Canada should develop a corporate strategic plan to ensure that all sectors address key aspects of its legislation and government priorities. To do so, it should implement a systematic strategic planning process across all sectors.

Department's response. Natural Resources Canada agrees that a sound strategic planning process is an important tool to address government priorities. To that end, steps have been taken to strengthen the corporate planning activities of the Department, including placing a renewed focus on corporate planning within the newly restructured Strategic Policy Branch and the formulation of appropriate options for senior management consideration.

Governance processes need a more strategic focus

1.46 Good corporate governance is key in the development of corporate strategies. An effective governance mechanism ensures that strategies are reflected in organizational business plans and monitors the implementation of the strategies to assess their effectiveness. The Department has identified a need to improve its corporate governance.

1.47 In 2001 it reviewed its governance practices to clarify roles and responsibilities and to identify options to improve efficiency and effectiveness. The review reported on the concerns of members of the Departmental Management Committee (DMC). It found that "the DMC was not a strategic decision-making governance body but rather an exchange forum on management issues." Further, the review found that the managers of horizontal files generally needed to improve their understanding of roles and responsibilities. This report and our interviews with staff indicate that the DMC needs a more strategic focus.

1.48 The Department's *2003–04 Report on Plans and Priorities* stated that it would review its departmental-level corporate governance system in 2003–04. As a first step, the DMC held three strategic retreats in 2003 and 2004. It reviewed horizontal issues and decided that the heads of the Corporate Services Sector and Corporate Policy and Portfolio Coordination

Branch would undertake additional work to develop a more strategic agenda for the DMC. As we completed our audit, the Department had yet to develop this agenda.

1.49 **Executive performance agreements need improvement.** To ensure that departmental and sector objectives are implemented, key objectives are included in the individual performance agreements that each senior executive enters into annually with his or her supervisor. The individual performance objectives and the assessment of related results comprise an important part of the governance structure. We found that executive performance agreements aligned well with the sectors' business plans. However, many of the performance agreements did not adequately address performance expectations. There was no process in place to discuss or share the performance agreements among the sector heads to ensure that the agreements adequately addressed horizontal issues involving more than one sector.

1.50 For example, a key commitment in the *2003–04 Report on Plans and Priorities* was to build a strong and diverse workforce. The Department indicated that this would require demographic analysis, forecasts of recruitment needs, an assessment of organizational health, and a need to monitor results. We found that the performance agreements did not contain any consistent description of the performance expectations related to this commitment. As a result, there was considerable variance in how the sectors had responded. One had plans for recruiting, learning, and career development in place, with appropriate milestones that are monitored regularly. Another had a draft plan, while a third had not yet assessed its staffing requirements.

1.51 **Sector business plans.** As discussed, we found significant differences in priorities established in the individual sector business plans. Business plans and priorities of the sectors are not structured to bring the resources of the Department together to work on cross-cutting issues. In order to promote internal coherence and address cross-cutting issues, the Department needs to employ a common strategy; or, at a minimum, it needs to establish common terms of reference for developing the strategies in the sector business plans.

1.52 Partially in response to this concern, Natural Resources Canada created the Office of the Chief Scientist. As we noted in paragraph 1.14, it is intended to bring consistency to the management of science and technology programs across the Department. Because the Office was just created in September 2003, it is too soon to assess its impact. There are other significant programs that cut across the Department that do not fall into the science and technology category. These programs are not reviewed and analyzed by an oversight body such as the Office of the Chief Scientist.

1.53 **Co-ordinating mechanisms.** The roles, responsibilities, authorities, and accountabilities of sector heads seem well understood, both individually and collectively. The roles, responsibilities, co-ordinating mechanisms, authorities, and accountabilities for horizontal issues are less clear within the Department.

1.54 Managers view co-ordination and collaboration as an essential element for the successful management of horizontal issues. While informal bilateral agreements between sector and branch heads exist for some horizontal issues, other horizontal issues are managed by specific responsibility centres such as the Corporate Policy and Portfolio Coordination Branch, Office of the Chief Scientist, Corporate Services Sector, Communications Branch, a Shared Services Office, or an Office of Primary Interest (a manager or group of managers tasked with a particular responsibility).

1.55 Only rarely are horizontal responsibilities and relationships formalized through written agreements that specify the mandate and resources that accompany the assignments. Individual and shared accountabilities are not well understood or effectively communicated to all parties. For example, we found that one sector's business plans indicated that it was spending about $61.5 million annually to support two other sectors. However, there was no communication between the sectors to ensure that the work planned was a priority for the other sectors.

1.56 **Recommendation.** Natural Resources Canada should improve its governance processes. More specifically, it should

- clarify the mandates, resources, roles, and responsibilities for the managers of horizontal issues; and
- develop more strategic governance processes promptly to ensure that its strategies and actions are coherent and that they adequately address key aspects of its legislation and government priorities and are effectively monitored.

Department's response. Natural Resources Canada recognizes the need to improve its governance processes. The Department has undertaken an assessment of the Departmental Management Committee's (DMC) governance processes, and options have been developed for the consideration of the DMC.

Sectors lack appropriate industry information for strategic planning

1.57 One of the Department's roles (identified in its legislation) is to gather, compile, analyze, co-ordinate, and disseminate information on matters affecting Canada's natural resources. A key part of developing this knowledge requires information on the status of natural resource industries. Natural Resources Canada needs systematic, statistical, and economic forecasts for natural resource industries to enable it to assess sustainable development and develop its strategies. Not all sectors have adequate industry information.

1.58 We found that the Minerals and Metals Sector has some good practices that could serve as a model for others. Annually, it publishes the Canadian Minerals Yearbook, which is both a review and outlook. The data gathering process is the same from year to year, thus providing comparative trends, and it involves the sector's many commodity officers in conjunction with the Minerals and Mining Statistics Division. With delegated authority from Statistics Canada, the Minerals and Metals Sector collaborates with partners in planning, conducting, and co-ordinating a broad range of national surveys in the mining industry. The Minerals and Metals Sector has actively involved provincial ministries in the approval process to help ensure that the data are complete and accurate and to help reduce duplication of efforts.

Downstream industries—Those industries closest to the consumer.

Upstream industries—Those industries closest to the resource.

There is no precise cut-off between these two categories; some industries could be a mix.

1.59 The Minerals and Metals Sector recently reviewed its legislative requirements for providing information and identified the need for the same degree of completeness and quality of data and analysis for the downstream industries (steel, automobile, and gas pipeline industries) as it currently has for the upstream industries (mining, smelting, and metal processing industries).

1.60 The Energy Policy Sector last published an outlook document, Canada Emissions Outlook: An Update, in 1999. It also uses energy supply and demand forecasts produced by the National Energy Board. While the Canadian Forest Service has conducted statistical and historical analyses, it has yet to develop an outlook for its upstream and downstream industries.

1.61 In 2003, Natural Resources Canada conducted a Department-wide study of the individual sectors' overall capacities to scan the external environment and conduct statistical and trend analyses. The sectors had varying capabilities in this regard (Exhibit 1.6).

Exhibit 1.6 Natural Resources Canada's self-assessment of its analysis capacity

Capacity for industry analysis				
	Forestry	**Earth Science**	**Minerals and Metals**	**Energy**
Scanning the environmental, statistical, and trend analyses	Medium	Low	High	High

Source: Natural Resources Canada

1.62 The Canadian Forest Service recently assessed what it is doing against what it believes it should be doing in the upstream and downstream forestry industries. It identified problems such as data gaps and inadequate human resources capacity in modelling, economic analysis, and policy development. For instance, the Canadian Forest Service lacks current data on domestic and international wood supply and international markets by product. While it has developed knowledge of specific issues, such as softwood lumber, it lacks in-depth analytical and technical ability.

1.63 The Energy Policy Sector is aware that its previous statistical and economic analysis model covered demand for energy but did not address supply. At the time of the audit, the Energy Policy Sector had recently acquired a new model and was working on producing an outlook document.

1.64 The Earth Sciences Sector is aware that it lacks the human resources capacity and data to conduct economic and industry analysis.

1.65 Natural Resources Canada needs to ensure that it has the information it needs to fulfill its legislative obligations and to inform its strategic planning. We found that some sectors had tried to obtain some information from sources outside the Department but were hampered by jurisdictional issues. Other sectors had not attempted to obtain information from outside the Department.

1.66 **Recommendation.** Natural Resources Canada should determine and obtain the industry information that it needs to support strategic decision making by producing it internally or obtaining it from outside sources.

Department's response. Natural Resources Canada recognizes the importance of industry information to support strategic decision making and has long been active in seeking out, on an ongoing basis, industry information from a variety of sources, both internally and from outside sources.

Human resources planning is inadequate

1.67 Part of the strategic planning process involves the analysis of required human resources and developing a strategy to acquire them. A recent study by the Department found general dissatisfaction within the Department with the extent and reliability of human resources information available from the corporate human resource information system. We found that the Department does not have the information it needs to determine what staff it needs to meet its business requirements.

1.68 Managers are aware that a substantial number of people will need to be replaced in the next five years. The demographic information (age, years of service, geographic distribution, and eligibility to retire by occupational group and level) gathered by the sectors from various sources varies significantly by sector in both the type of information and the level of detail available to develop a plan. One of the five operational sectors has an analysis and staffing plan that aligns staffing action with future business needs. Another sector has a draft staffing plan but has not assessed current competencies and aligned them with projected business needs. The three remaining operational sectors have only recently begun to analyze the skills and competencies required compared with those available.

1.69 **Recruiting science and technology staff.** In 2004, the Department conducted a resources demand analysis of its science and technology staffing needs. Analysis results indicated that in certain key areas, the percentage of science and technology staff aged 50 or over was between 35 and 40 percent.

1.70 More than 116 out of about 500 research scientists are eligible to retire immediately with a full pension. By April 2006, an additional 212 people in the Department will be eligible to retire; about half of those are scientists and technologists. While this study provided useful information about future retirements, it did not include information on current capacities and competencies or those needed to replace retiring staff.

1.71 **Recruiting executive staff.** Executive staff, primarily responsible for the leadership and direction of Natural Resources Canada, are also approaching retirement. A recent review of the executive category indicates that about 20 percent of about 120 staff will be eligible to retire in the next 18 months. However, the competencies required to replace executive staff have not been determined, and there is no succession plan.

1.72 **Recruiting policy and economic analysts.** Natural Resources Canada has a special recruitment program in place to strengthen its capacity to provide policy direction by hiring staff in the economic and social sciences service category. There are about 260 staff in this category at Natural Resources Canada. Between April 2001 and March 2003, 48 left. In 2004, the Department successfully recruited 22 qualified candidates with masters and doctoral degrees. The Department also has other recruitment programs aimed at meeting its needs in this area.

1.73 Natural Resources Canada has recognized the importance of human resources planning for the Department as a whole. However, it needs to develop a plan and process to collect and maintain information on the education levels, skills, and competencies for staff in the research, policy, and management categories, particularly in the groups just below the senior levels that will be drawn on to replace retiring staff. This information needs to be integrated with labour market data and an analysis of the Department's future needs in order to develop a recruitment and retention strategy that will ensure that Natural Resources Canada has the resources it needs to discharge its mandate.

1.74 **Recommendation.** Natural Resources Canada should

- document the competencies and capacities of its current workforce,
- develop a clear understanding of the competencies and capacities that it will need to develop or acquire to replace the large percentage of key staff eligible to retire in the next few years, and
- develop and implement a human resources plan that aligns the competencies required with future business needs.

Department's response. The Department agrees that it should develop and implement a human resources plan that aligns the competencies required with future business needs, recognizing the challenges implicit in the Department's dependence on sunset funding. The "NRCan 2005–2008 Strategies for the Management of Human Resources," approved by the Departmental Management Committee, identifies specific recommendations for the Department to develop an integrated approach to the management of human resources. The Department's strategies focus on the improvement of three significant areas: management/executive capacity, non-executive recruitment, and retention/well-being, as the Department prepares for the integration of human resources planning within the annual business planning cycle.

Information systems used for corporate oversight need improvement

1.75 We reviewed the information systems used by the five operational sectors and five regional offices for decision making and corporate oversight, primarily in relation to scientific projects. Regional offices report through the operational sectors. We found that the Department's information management practices are uneven and highly variable.

1.76 Each sector and regional office we reviewed has created its own budgeting system and project management system for research and development. While some systems were integrated with the departmental financial information system, others had to be manually collated to produce information on the status of research and development projects. The systems were not integrated, and the Department was not able to provide us with a complete list of ongoing research and development projects.

1.77 An important role of the Office of the Chief Scientist is to provide a framework for science and technology management. In order to achieve this, the Office needs consistent information across the sectors. The highly varied systems in use and the uneven data are currently inadequate to support the Office or to allow effective corporate oversight. Key information on research and development projects is needed across the sectors, including

- the number of projects completed in the last five years;
- the percentage completed on time, on budget, and on schedule;
- the results compared against objectives;
- the number of integrated projects and the processes by which they were integrated; and
- the number of "post-mortems" and lessons-learned sessions conducted.

1.78 **Recommendation.** Natural Resources Canada should improve its research project management systems to ensure that it has better-integrated information to support effective corporate oversight.

Department's response. The Department recognizes the need for improvements to its research project management systems. Following up on the Science & Technology (S&T) Information Needs and Options Analysis performed in 2003–04, a S&T Information System will be established to provide key information for all S&T activities within the Department at the sub-sub activities level of its Program Activity Architecture. The broad categories of information to be managed by this system can be categorized as operational information, performance information, resource information, and reach information.

Preparing for emergencies and assessing risk

The Department is not prepared for emergencies in all its responsibility areas

1.79 According to its March 2004 Performance Report, Natural Resources Canada spent $31.7 million to provide Canadians with safety and security in the natural resource sectors. Activities in this area relate to

- meeting Canadians' safety and security needs;
- policy research and development and program support;

- regulation and assistance for the development of offshore oil industry; and
- regulation, research, and control of explosives.

1.80 Many of the Department's ongoing activities contribute to the safety and security of Canadians. We focussed on its responsibility for emergency preparedness to deal with hazards that are identified in legislation and government direction. We reviewed this responsibility to determine how emergency preparedness is managed across the Department.

1.81 The *Emergency Preparedness Act* establishes the requirement for Natural Resources Canada to have civil emergency plans for contingencies that are within or related to its area of accountability. A civil emergency plan developed pursuant to the Act is required, as appropriate, to provide for

- assistance and advice to provincial governments and, through provincial governments, to local authorities;
- federal-provincial regional plans; and
- the safety and welfare, during an emergency, of officers and employees of the government institution.

The Act also requires the Department to conduct training and exercises in relation to a civic emergency plan developed pursuant to the Act.

1.82 In 1995, the government established a policy for emergency preparedness and named Natural Resources Canada as the federal lead in the following areas:

- offshore oil and gas production and exploration in areas over which the Minister of Natural Resources has administrative authority (includes the Canada–Newfoundland and Canada–Nova Scotia oil and gas offshore accord area emergency plans);
- mine disasters;
- federal advice and assistance in combatting and containing fires, blights, disease, insect infestations, or other threats to Canada's forest resources;
- energy shortages or major power failures; and
- control and regulation, in collaboration with the National Energy Board, of the production, generation, processing, transmission, storage, sale, domestic distribution, and exports and imports of energy.

The Department informed us that this policy is out of date and is being revised. However, until it is replaced, it remains in effect. Government guidelines related to this policy are set out in Exhibit 1.7.

1.83 In 1996, the government designated Natural Resources Canada together with Industry Canada as the lead for developing emergency plans for contingencies resulting from, or in, a shortage of strategic mineral commodities.

Exhibit 1.7 Government guidelines for emergency preparedness plans

Emergency preparedness plans should provide for the following:

Other jurisdictional co-operation—Secure to the extent possible and desirable the co-operation and active support of the private sector, benevolent and volunteer organizations, territorial and provincial governments and, through the latter, local authorities.

Governance framework—Establish effective mechanisms of consultation, reporting, and overall direction and control, including other federal support departments.

Reactivation priorities—Establish and administer priorities for the repair, replacement, rehabilitation, or reactivation of lost or damaged resources or facilities.

Situational determination—Assess and determine regional and national requirements, in relation to available resources, for the supply of services and materiel.

Resource allocation—Establish and administer priorities to ensure the effective allocation of services and materiel in short supply, and establish and maintain programs to overcome the shortages.

Regional adaptation—Establish and manage administrative mechanisms or facilities necessary to permit the emergency response function to be effectively carried out in any region of Canada.

International obligations—Co-ordinate with relevant international organizations to deploy resources to other countries in response to requests for emergency assistance or to fulfill international commitments.

Worker safety and welfare—Ensure the safety and welfare, during an emergency, of federal employees and other responders working under departmental control.

Source: Summary of Departmental Planning Responsibilities for Emergency Preparedness, June 1995

1.84 The 1995 Federal Policy for Emergencies states,

> The federal government intervenes in civil emergencies only when formally requested by a province or territory or when the emergency clearly impacts on areas of federal jurisdiction, such as fires or floods on federal lands. . . . When the federal government does intervene, unless a lead minister has been designated in advance, a minister, and hence department, may be named to assume the lead role and co-ordinate the collective effort of the federal government.

1.85 We reviewed Natural Resources Canada's plans for emergency preparedness in its areas of responsibility. Our assessment of the essential elements for these plans is set out in Exhibit 1.8. We assessed the element as "fully met" when the plan explicitly addressed the element and included formal arrangements. Where a plan does not explicitly address the element and its arrangements, or where the references are vague, we assessed the element as "does not meet." Two of the plans we reviewed were well-done and could be used as a model for developing plans in other areas of the Department's responsibility. Other plans had some of the information required. The Department has no plans to address mine disasters or shortages of strategic mineral commodities.

Exhibit 1.8 Our assessment of the Department's emergency preparedness plans

Areas of federal lead	Other jurisdictional cooperation	Governance framework	Reactivation priorities	Situational determination	Resource allocation	Regional adaptation	International obligations	Worker safety and welfare
Natural Resources Canada's offshore oil and gas production and exploration emergency plan for the accord areas	●	●	●	●	●	●	○	●
Mine disasters	○	○	○	○	○	○	○	○
Federal advice and assistance in combatting and containing fires, blights, disease, insect infestations, or other threats to Canada's forest resources	○	○	○	○	○	○	○	○
Energy shortages or major power failures	◒	○	○	○	○	○	○	○
Control and regulation, in collaboration with the National Energy Board, of the production, generation, processing, transmission, storage, sale, domestic distribution, and exports and imports of energy	◒	◒	○	○	○	○	●	○
Emergencies resulting from, or in, a shortage of strategic mineral commodities (federal co-leader)	○	○	○	○	○	○	○	○

● Fully meets guideline requirements ◒ Partially meets ○ Does not meet

1.86 In the area of forest resources, the Department helped establish the Canadian Inter-Agency Forest Fire Centre that co-ordinates forest-fire fighting equipment across Canada. However, the Department was unable to provide us with plans to address the other requirements for forest resources.

1.87 In August 2003, large portions of Ontario and the Midwest and Northeast United States experienced an electric power blackout. Natural Resources Canada was appointed as the Canadian lead on the Canada–U.S. task force that was established to investigate the causes of the blackout and to find ways to reduce the possibility of future outages.

1.88 In spite of the 2003 blackout, at the time of our audit the Department was unable to provide us with plans to address energy shortages.

1.89 Since the blackout, the Department has attempted to assess the risks to electricity supply but has found the task very difficult as it must depend on the voluntary co-operation of electricity suppliers. There are no current federal regulations that would compel the industry to co-operate.

Risk assessment processes are inadequate

1.90 An important part of emergency preparedness is assessing the possible risks in any of the Department's responsibility areas. Risk assessment is also required throughout the organization for strategic planning and management. A risk assessment process allows the Department to answer these questions:

- What is the threat?
- What is the probability of occurrence within a specified geographical area and a set time frame?
- What are the economic, social, and environmental impacts?

1.91 Risk assessments should be based on scientific and economic information and analysis. A standardized, systematic, and rigorous risk assessment system will provide the scientific basis to proactively manage threats, set priorities, develop plans, and allocate resources. In September 2003, the Department released "A Guide for Using Natural Resources Canada's Priority Setting Model to Rate Management Initiatives." It provides guidance for risk assessment, but it is too general to provide effective guidance for assessing risks and threats related to potential civil and national emergencies.

1.92 Each sector in the Department has dedicated resources to carry out scientific risk assessments. These assessments provide valuable information; however, sectors use different frames of reference in analyzing risks (Exhibit 1.9). This inconsistent approach makes it impossible for the Department to compare potential economic and social impacts across the sectors and best allocate departmental resources in either its day-to-day business or in the case of emergencies.

Exhibit 1.9 Examples of differing frames of reference

Hazard	Area analyzed to assess impact	Time frame used to analyze probable frequency of occurrence
Wildfires (Canadian Forest Service)	Four square kilometres	41 years
Explosives (Minerals and Metals Sector)	Administrative regions	2 years
Natural Hazards (Earth Sciences Sector)	All of Canada	Varies by hazard
Energy Infrastructure (Energy Policy Sector)	Company service area (for companies who have volunteered information only)	Frequency not considered

1.93 It is particularly important that the Department have information on emerging threats. While the sectors continue to develop valuable contacts and to identify new sources of information, this intelligence comes from a number of sources and is gathered informally. The information is not integrated into a formal risk assessment process.

Economic information and analysis needs to be strengthened

1.94 A good risk assessment should include analysis of the possible economic impacts that may result when potential threats actually occur. The quality and nature of the economic information that is used has a direct impact on the value of the completed risk assessment. We looked at examples of certain threats and found that the assessment of economic impacts of the threat could be strengthened. We found that when assessing economic impacts, the sectors considered a range of factors such as departmental liability, loss of reputation, overall personal injury and property damage, and future loss to society. However, the sectors did not consistently consider the same factors, and they have attempted to quantify the consequences in different ways.

1.95 More specifically, there was limited information on who would be at risk, the volume and value of the property at risk, and other values that might potentially be at risk, such as departmental liability or the general economy. Sources of economic information are not well developed, making it difficult to assess the economic impact of a threat.

1.96 **Recommendation.** Natural Resources Canada should develop plans and improve its risk analyses to deal with its responsibilities in emergency situations. In particular, the Department should

- develop, in co-ordination with other key stakeholders, emergency plans in the areas where it is required to respond to civil emergencies, particularly where it has the lead federal role; and

- re-examine its risk assessment guidance and apply risk assessment processes consistently across its five operational sectors, including applying a more coherent analysis of the economic impact of potential threats.

Department's response. Natural Resources Canada (NRCan) recognizes the importance of appropriate civil emergency plans. The document that identifies the responsibilities for federal departments, "Departmental Planning Responsibilities for Emergency Preparedness," has not been amended since its 1995 publication, despite significant changes to Canada's national security environment in the last decade. Natural Resources Canada has engaged Public Safety and Emergency Preparedness Canada (PSEPC)—the successor department to that which authored the 1995 document. PSEPC agrees that the 1995 planning document is outdated and has advised that it has launched a process to modernize Canada's emergency preparedness policy. NRCan will continue to work collaboratively with PSEPC in the development of appropriate emergency plans in the context of evolving federal policy.

The Department is strengthening its integrated risk management program to better integrate risk management into the Department's activities and, in so doing, it will develop further guidance for the sectors on the application of risk assessment methodologies and tools within NRCan.

The Department wishes to respond to the statements made in paragraphs 1.87, 1.88, and 1.89, to clarify the role and nature of NRCan's involvement in electricity reliability. The governments of Canada and the U.S. agreed in 1969 that the North American Electric Reliability Council (NERC) was to develop reliability standards for the electric system in Canada and the U.S., to monitor compliance with the standards, and to establish procedures for emergency support for electric utilities experiencing unanticipated reliability difficulties. This system was in place in August 2003, and it succeeded in restoring power to much of the blacked out region within hours and to the entire region within days. NRCan has since worked with the U.S. in a task force to analyze and report on the blackout. The task force made 46 recommendations to improve electricity reliability. NRCan, NERC, industry, regulators, and provincial governments, who have jurisdiction over electricity, are working together to implement these recommendations in Canada. Further, pursuant to Canada's commitments under the Smart Border Declaration, signed in December 2001, NRCan initiated a process with the U.S. to conduct vulnerability assessments of critical cross-border energy infrastructure. The pilot assessments of electricity generation and cross-border transmission infrastructure were completed in March 2004.

Information for Parliament

1.97 Natural Resources Canada is accountable for tabling four major annual reports in Parliament:

- Report on Plans and Priorities;
- Departmental Performance Report;
- Improving Energy Performance in Canada; and
- The State of Canada's Forests.

It is also required to table a report on its sustainable development strategy once every three years. We did not review the Department's performance against its sustainable development strategy.

1.98 We reviewed the 2001–02 and 2002–03 reports titled Improving Energy Performance in Canada; the 2002–03 and 2003–04 reports titled The State of Canada's Forests; the March 2003 and March 2004 departmental performance reports; and the reports on plans and priorities for 2003–04 and 2004–05. We also reviewed supporting documentation for the reports and interviewed responsible officials. We did not audit the data in the reports.

The Department generally meets its annual reporting obligations

1.99 **Reports on the administration and enforcement of the *Energy Efficiency Act*.** As soon as possible after the end of each fiscal year, Natural Resources Canada is required to report to Parliament on the administration and enforcement of the *Energy Efficiency Act*. The Act deals with the importation and inter-provincial trade in energy-using products (for example, refrigerators) and the promotion of energy efficiency and alternative energy sources. It also provides authority for the government to make regulations with respect to matters related to energy and energy-using products.

1.100 While the reports include substantial and detailed information and provide examples of good reporting practices, they could be improved in their timeliness and coverage (for example, regulatory coverage, enforcement provisions, and energy efficiency of imports).

1.101 **Reports on the state of Canada's forests.** Natural Resources Canada is required to report annually to Parliament on

- the state of the forests in Canada,
- the contribution of Canada's forests to the economy and environment of Canada, and
- the contribution of Canada's forests to the social-well-being of Canadians.

1.102 We found that the Department has generally met its reporting obligations and has improved the report and made it more useful to readers.

Performance reporting has several shortcomings

1.103 In the case of the departmental planning and performance reports, we expected the Department to produce adequate performance information, use this information to manage for results, and demonstrate good reporting of these results to Parliament.

1.104 **No coherent process for performance management.** Like many other departments, Natural Resources Canada has found it difficult to establish results at a corporate level and to manage its sectors to achieve those results. We found no systematic process that could help the Department move toward this at a Department-wide level. The Department's performance measurement framework, approved by the Treasury Board in 1999, comprises 5 departmental goals (or strategic outcomes), 16 short or medium-term objectives, and 35 performance indicators.

1.105 At the time of our audit, the Department was revising its performance measurement framework. It is too early to say whether the proposed changes will result in a better framework.

1.106 The Department's reports on plans and priorities and its performance reports are largely a sum of the sector plans and reports. In the two operational sectors that have aligned their business plans with the departmental plans, assessments of results achieved against the business plans have helped provide good information for the departmental reports. In the three other operating sectors, the lack of alignment with the departmental reports generally precludes good reporting.

1.107 **Reports need improvement.** The Department's performance reports set out a brief vision statement and five strategic outcomes. Because the reports do not include a statement of the Department's legislated mandate or of its mission, it would be difficult for parliamentarians to determine whether the Department's planned strategic outcomes are consistent with its mandate.

1.108 Although the reports link the Department's priorities to government priorities, they do not include a specific discussion of the contribution of the strategic outcomes to the government's priorities. Moreover, the reports do not include any discussion of risks or challenges to achieving the strategic outcomes identified by the Department.

1.109 In the reports on plans and priorities, each strategic outcome aligns with broad statements of commitments and key accomplishments. In the March 2003 *Performance Report*, the key accomplishments are described mostly in narrative form in terms of activities, outputs and, in some cases, outcomes. The March 2004 *Performance Report* also includes a chart that summarizes performance against each commitment made in the related Report on Plans and Priorities.

1.110 The Department made a commitment in its *2001–02 Report on Plans and Priorities* to report on 35 performance indicators on a cyclical basis. That is, each performance report since 2001–02 has included data on a different grouping (about one quarter) of the 35 performance indicators. The March *2003 Performance Report* did not explain the cyclical reporting. This lack of complete performance data and assessments against various frameworks makes it difficult for parliamentarians to get a complete picture of the Department's performance.

1.111 Recommendation. Natural Resources Canada should improve its performance measurement framework and reporting to provide parliamentarians with better information on the results and outcomes of its programs. In particular, it should

- develop a systematic process for linking performance targets at the corporate level with business plans; and
- improve its performance reports by including an analysis of its legislated mandate, linking the Department's priorities to government priorities and rationalizing its assessment of its performance against various frameworks.

Department's response. Natural Resources Canada agrees that it needs to better explain its performance measurement reporting at the corporate level. As part of the new Program Activity Architecture, the Department will provide a better linkage between corporate performance targets and the business plans of its program activities.

Natural Resources Canada will include mandate and mission information in all future reports on plans and priorities and departmental performance reports, and it will better explain the linkages between the government's and the Department's priorities.

Conclusion

1.112 In recent years, Natural Resources Canada has focussed on a number of major initiatives. However, we found that its strategic governance mechanisms, management systems, and practices need improvement.

1.113 The Department does not have a corporate strategic plan or a coherent Department-wide process to consider its legislated mandate and potential risks in the development of its strategies. Departmental strategies are not adequately reflected in the sectors' business plans and communicated throughout the Department.

1.114 In the one strategic priority that was consistently identified as a priority across the five operational sectors—public safety, we found little consistency in the sectors' analysis of their responsibilities for emergency preparedness or in the adequacy of how they dealt with it.

1.115 The Department does not have adequate systems for aligning qualified staff with current and future strategic needs, nor does it have a plan to ensure that it will maintain the human resources capacity it needs to deliver on its mandate and programs in the short term. We also found weaknesses in the information management systems for supporting oversight at the corporate level.

1.116 Natural Resources Canada generally meets its statutory obligations for key annual reports. However, we found that the Department needs to improve its processes for assessing performance information on its key activities and the results of its efforts and for reporting this information to Parliament.

About the Audit

Objectives

Our audit objectives were

- to assess whether Natural Resources Canada's governance mechanisms, management systems, and practices at the strategic level are adequate to support its Department-wide policy development, research, program, and other activities; and
- to determine whether the Department appropriately assesses and reports to Parliament the results and impacts of its efforts and meets its statutory reporting obligations.

Our more specific objectives were to determine whether Natural Resources Canada

- periodically reassesses the appropriateness of its activities; makes its strategic decisions with adequate consideration of legislated mandate, risks, options, stakeholders, and potential impacts, and communicates them effectively; and aligns its business plans with the departmental strategy;
- has appropriate systems and practices for selecting and terminating programs and research and development projects, and ensuring adequate oversight at the corporate level;
- aligns qualified staff with current and future strategic needs;
- uses performance information on its key activities to effectively monitor and manage its operations and report to Parliament on the achievement of its objectives; and
- meets its reporting obligations pursuant to the *Report on the State of Canada's Forests Regulations* and the *Energy Efficiency Act*.

Scope and approach

The audit focussed on Natural Resources Canada's current governance and management practices, systems, and procedures that are used to manage its policy analysis, regulatory, program, and science and technology business activities at the strategic level. Our audit covered the Department's industry-based sectors and its Earth Sciences Sector; the latter provides support to the industry-based sectors through its geoscience and geomatics activities.

The audit also included examining the information management and human resource planning activities of the Department's corporate branches: Corporate Policy and Portfolio Coordination Branch, the Office of the Chief Scientist, and the Corporate Services Sector.

Our audit process included interviews with about 140 management staff and key stakeholders. It also included extensive review and analysis of the following documents, systems, and practices:

- authorities, strategies, business plans, policies, estimates, directives;
- minutes and observations of internal management meetings and external advisory meetings;
- major management and control systems and procedures;
- departmental performance reports and reports on plans and priorities as well as newer, additional mechanisms for reporting, such as Internet links to auxiliary departmental information; and
- management accountability agreement commitments and evaluations.

We visited the following regional offices: Northern Forestry Centre, Edmonton, Alberta; Geomatics Canada, Edmonton, Alberta; Devon Pilot Plant, Devon, Alberta; Pacific Forestry Centre, Victoria, British Columbia; and Pacific Geoscience Centre, Victoria, British Columbia.

Criteria

The Department should have a strategic plan consistent with its mandate and government priorities that gives due consideration to factors such as external environment, risks, options, stakeholders, available resources, organizational strengths and weaknesses, and potential impacts. The strategic plan should align risks with strategic options, proposed courses of action, objectives, and expected results. It should be effectively communicated to staff and implemented throughout the organization.

The Department should have long-term plans and business plans with clear objectives, goals, and expected results consistent with its strategic plan. These plans should be used to manage for results.

The Department should have a risk management framework, systems, and practices that ensure that

- appropriate information is available for decision making on strategic priorities and resource allocations;
- business risks are managed;
- programs, initiatives, and projects are integrated;
- good project management practices are used; and
- corporate oversight of progress and results is adequate.

The Department should have appropriate human resource planning processes and strategies over a forecasted five-year period that

- analyze its current workforce (especially research, policy, scientific and management staff and their feeder groups) in terms of demographics, skills, and competencies;
- assess the future renewal requirements of the above-noted groups in light of their strategic direction;
- identify gaps in skills needed and currently available, now and in the future, and identify over-supply, if any, in current workforce;
- specify strategies and accountabilities for addressing the gaps or over-supply and include an action plan that integrates recruitment, retention, learning, and career development; and
- provide for reports to senior management on progress and updates of the human resource plan on a regular basis.

Natural Resources Canada should have a performance management framework and management practices that

- produce adequate performance information,
- use this performance information to manage for better results, and
- demonstrate good public reporting of these results to Parliament.

Natural Resources Canada should table a report on the state of the forests in Canada in each House of Parliament annually. The report should include information on the contribution of Canada's forests to the economy and environment of Canada, and the contribution of Canada's forests to the social well-being of Canada.

Natural Resources Canada should table a report as required by the *Energy Efficiency Act*, in each House of Parliament annually. The report should include information on

- the administration and enforcement of the provisions of the *Energy Efficiency Act*, during the preceding fiscal year and regulations made under that Act related to energy-using products; and
- the administration and enforcement of the provisions of the *Energy Efficiency Act*, during the preceding fiscal year and regulations made under that Act related to promotion of energy efficiency and alternative energy sources.

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APRIL

Chapter 2
National Security in Canada—
The 2001 Anti-Terrorism Initiative:
Air Transportation Security, Marine Security,
and Emergency Preparedness

Office of the Auditor General of Canada

The April 2005 Report of the Auditor General of Canada comprises six chapters, and a Message From the Auditor General of Canada and Main Points. The main table of contents is found at the end of this publication.

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Chapter

2

National Security in Canada—The 2001 Anti-Terrorism Initiative

Air Transportation Security, Marine Security, and Emergency Preparedness

All of the audit work in this chapter was conducted in accordance with the standards for assurance engagements set by the Canadian Institute of Chartered Accountants. While the Office adopts these standards as the minimum requirement for our audits, we also draw upon the standards and practices of other disciplines.

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National Security in Canada— The 2001 Anti-Terrorism Initiative

Air Transportation Security, Marine Security, and Emergency Preparedness

Main Points

2.1 In December 2003—two years after it launched its anti-terrorism initiative—the government reorganized federal emergency planning, creating Public Safety and Emergency Preparedness Canada. The new department began an extensive reform program, but much remains to be done. Threat and risk analyses were not always used to guide the disbursement of funds by the previous agency to municipalities and provinces, resulting in poor allocation of funds. We found in a number of cases that programs do not appear to have achieved the intended results:

- In 2002 to 2004, federal funds were used to purchase equipment for first responders that did not have to be interoperable, losing a key opportunity to enhance the national capacity to respond to an emergency.
- The Office of Critical Infrastructure Protection and Emergency Preparedness, responsible for implementing a critical infrastructure protection initiative of Budget 2001, could not tell us what it had spent funds on. About one third of the funds allocated so far to this program may have lapsed.

2.2 Governance structures require continued attention. The government has established the Government Operations Centre to manage emergency responses, but the legislative and infrastructure frameworks remain uncompleted. Managing the budgets of projects that cut across several departments worked well in some cases, such as marine security and the CBRN Research and Technology Initiative, but failed in the cases of CBRN training for first responders and critical infrastructure protection. (CBRN refers to chemical, biological, radiological, or nuclear threats.)

2.3 The departments responsible for the CBRN Training Initiative estimated that about 6,000 first responders should be trained in how to intervene in and neutralize a serious event. We found that 200 people had been trained to this level so far under the CBRN Training Initiative.

2.4 Some key elements of the federal government's air transport security program are moving forward. The purchase and installation of explosives detection systems to screen passengers and baggage—an initiative by the Canadian Air Transport Security Authority (CATSA) at a cost of over $1 billion—are proceeding mostly as planned. Analyses of requirements and options were generally adequate.

2.5 Other elements, however, are working less well. Transport Canada told us it does not have a major problem with CATSA, but the Department has set no system-wide performance levels for CATSA and completed no assessments of its performance. The Department has not defined the sanctions it will use against CATSA if education and persuasion fail to get timely results.

2.6 Marine security programs have been based on an adequate threat and risk analysis. Implementing the Automated Identification System for ships encountered delays but is still expected to be completed by its original implementation date. The High Frequency Surface Wave Radar project, intended to provide continuous, real-time surveillance of Canada's coastal areas, represents an improvement in surveillance but will not provide full coverage. The government is acquiring fewer radar sets than considered necessary for complete coverage, and the radar will have a more limited range than originally forecast. The result will be gaps in coverage, with significant additional costs if full coverage is to be attained.

2.7 The government's implementation of the International Ship and Port Facility Security Code, necessary to keep Canadian ports and ships in the business of world trade, is generally going well. However, some certificates were issued on an interim basis, and security inspectors may be pressed to complete the inspections required for new certificates by the renewal deadline.

Background and other observations

2.8 This is the second of two audit reports on the federal government's anti-terrorism initiative announced in the 2001 Budget after the September 11 attacks on the United States. The government initially announced $7.7 billion for this initiative and subsequently added another $690 million.

2.9 Our first report, published in March 2004, addressed budget management, the allocation of funds, monitoring of expenditures, intelligence issues, and some aspects of air and border security. This chapter addresses air transportation security, elements of marine security, and emergency preparedness programs.

The departments and agencies have responded. In general, the organizations have agreed with our recommendations, although commitments toward remedial action remain vague in some cases. We found the response from Public Safety and Emergency Preparedness Canada to be positive, as the Department is already moving ahead in some areas.

Introduction

2.10 This chapter is the second of two on the government's Budget 2001 national security enhancement initiative. The first chapter was published in the March 2004 Report of the Auditor General of Canada (Chapter 3, National Security in Canada—The 2001 Anti-Terrorism Initiative). Excerpts from that chapter are provided as background in Exhibit 2.1

2.11 **Previous audit findings.** Our 2004 chapter addressed budget management, the allocation of funds, monitoring of expenditures, intelligence issues, and some aspects of air and border security. We reported the following:

- The government lacked a management framework to guide investment, management, and development decisions and allow it to direct complementary actions of separate agencies or choose among conflicting priorities.
- The government had failed to improve its security information systems to ensure that they could communicate with each other.
- We found a lack of co-ordination of intelligence and a failure to adequately assess the intelligence lessons learned from critical incidents such as the September 11 attacks.
- Lists used to screen visa applicants, refugee claimants, and travellers entering Canada had gaps and inconsistencies.
- Criminal intelligence data were not used in screening applicants for clearance to restricted areas at airports.

The government responded with actions to address our findings. We have not yet followed up on its response.

2.12 The Government of Canada released its first national security policy on 27 April 2004. The policy sets out an integrated approach to security issues across government to address a wide range of risks and threats. The government allocated an additional $690 million from the contingency reserves of Budget 2001 and Budget 2003 and provided new funding in Budget 2004. The policy focussed on three national security interests:

- protecting Canada and Canadians at home and abroad
- ensuring that Canada is not a base for threats to our allies
- contributing to international security

2.13 The policy sets out actions planned by the government in a number of key areas:

- intelligence
- emergency planning and management
- public health
- transport security
- border security
- international security

Exhibit 2.1 Federal response to September 11, 2001

Excerpts from March 2004 Report of the Auditor General, Chapter 3—National Security in Canada—The 2001 Anti-Terrorism Initiative

3.8 On September 11, 2001 the United States suffered an unprecedented terrorist attack that destroyed the World Trade Center, damaged the Pentagon, destroyed four civilian airliners, and killed thousands of citizens. The immediate effects on Canada were the need to deal with the shutdown of civil air transport and look after passengers on grounded airliners; heightened border security; and a sudden sense of personal and economic insecurity.

3.9 The crisis period lasted several months, during which the federal government had to sustain internal and border security operations at a high level. Defence, intelligence, police, and border control agencies worked to full capacity. Ministers and senior managers sought to deal with policy and budget issues on an urgent basis, while at the same time drafting emergency legislation and guiding it through Parliament.

3.10 In the longer term, the federal government has had to develop policies and programs to deal with the threat of terrorism not only to Canada directly but also to the United States and the rest of the world.

3.11 **Management of national security**. On 12 December 2003, the Prime Minister announced significant changes to the structure of parliamentary committees, departments, and agencies. The principal changes involving national security were the following:

- A new department, Public Safety and Emergency Preparedness Canada, was created from the former Solicitor General Canada. The new department includes the Office of Critical Infrastructure Protection and Emergency Preparedness, transferred from National Defence.
- The Canada Border Services Agency, reporting to the Minister of Public Safety and Emergency Preparedness, comprises the Customs Branch from the former Canada Customs and Revenue Agency, the intelligence and enforcement sections from Citizenship and Immigration Canada, and the border inspection function of food, plant, and animal health from the Canadian Food Inspection Agency.
- The new position of National Security Advisor to the Prime Minister in the Privy Council Office co-ordinates integrated threat assessments, helps strengthen interagency co-operation, and assists in the development of an integrated policy framework for national security and emergencies.
- The Minister of Transport is now responsible for security in all transportation sectors.
- A new Cabinet Committee on Security, Public Health and Emergencies manages national security and intelligence issues and activities and government-wide responses to public health, national disasters, and security emergencies. It replaces the Ad Hoc Committee on Public Security and Anti-Terrorism.

* * * * *

3.14 Until December 2003, no single minister below the Prime Minister was responsible for Canada's security. The organizations involved in security reported to their respective ministers, who were accountable for their activities. Ultimately the Prime Minister was, and remains, accountable for the security of the country and therefore provides broad guidance.

* * * * *

3.19 **New funding**. During October 2001, the government approved several major new allocations of funds, including:

- $30 million annually to provide immediate, permanent staff increases to the Canada Customs and Revenue Agency, Citizenship and Immigration Canada, the RCMP, and Transport Canada;
- $250 million for immediate security initiatives—largely capital and equipment—to 15 departments and agencies;
- $71.5 million in urgent funding to offset unforeseen costs such as overtime for Customs and the RCMP; and
- $160 million to compensate Canadian air carriers and specialty operators for losses resulting from the closure of Canadian air space following the September 11 attacks.

3.20 Except for the funds to compensate air carriers, these amounts were part of the $7.7 billion announced in the December 2001 Budget as new spending over 2001–02 and the following five years for enhanced security, emergency preparedness, and improving border infrastructure. The Budget was designed to keep Canada safe, keep terrorists out, and keep Canada's border open. It announced $6.5 billion for security, including the creation of a new air security authority, additional funding for intelligence and policing, and funding for Canada's military; and more than $1.2 billion for initiatives designed to make Canada's border more secure, open, and efficient.

Exhibit 2.1 Federal response to September 11, 2001 (continued)

3.21 The Budget included major investments to

- equip and deploy more intelligence and front-line investigative personnel, improve co-ordination among agencies, and boost marine security ($1.6 billion);
- improve screening of immigrants, refugee claimants, and visitors (including detention and removal), speed up the determination of refugee claims, and introduce new fraud-resistant Permanent Resident Cards ($1 billion);
- improve the protection of critical infrastructure and emergency preparedness and response; and expand the military's anti-terrorism capacity ($1.6 billion);
- create a new air security organization, place armed plainclothes police officers on Canadian aircraft, purchase explosive-detection equipment, and enhance air transportation policing ($2.2 billion); and
- enhance border security and improve the infrastructure that supports major border crossings to ensure the legitimate flow of goods and people ($1.2 billion).

Focus of the audit

2.14 Given the large number of programs and initiatives funded by the December 2001 Budget, we decided to examine air travel security, elements of marine security, and emergency preparedness in a second audit. This chapter reports the results of that audit.

2.15 The chapter focusses on three specific program areas funded from the 2001 Budget:

- **The integrity of the air transportation security system.** Transport Canada sets policy for and regulates the air transportation security system. We looked at how well it plays its role. We also looked at whether the implementation of explosives detection systems at Canada's airports was well planned and is proceeding smoothly. The 2001 Budget allocated more than $1 billion over five years for this purpose.
- **Marine security.** The 2001 Budget initiative identified marine security as a priority, but the government was unable to put forward a plan quickly. It formed the Interdepartmental Marine Security Working Group in 2001, which developed a multi-agency program. We audited two capital projects that were part of this initiative—High Frequency Surface Wave Radar and the Automatic Identification System for ships. We also audited the federal government's part in implementing the International Ship and Port Security Code, intended to secure Canadian ships and ports.
- **Emergency preparedness.** Budget 2001 allocated $513 million over five years to improve federal and national preparedness for chemical, biological, radiological, and nuclear attacks. We audited the accountability and management structure of the programs, the adequacy of the capacity being created, and the progress of training and exercise programs.

2.16 More details on the objectives, scope, approach, and criteria of the audit are included at the end of the chapter in **About the Audit**.

Observations and Recommendations

Air transport security

Security inspection and enforcement roles and responsibilities

2.17 Aviation security aims to protect the general public, passengers, crew members, airports, other aviation facilities, and aircraft against unlawful interference. Transport Canada has established a range of tools to promote security, including programs for prevention, detection, awareness, education, and deterrence. Security programs cover regulations that govern airport operators; air carriers; agencies that screen passengers and baggage before allowing them into the system; access to restricted areas; possession of weapons; persons under escort; and response to security threats. Transport Canada is responsible for enforcing its regulations. Its security inspectors can assess monetary penalties, remove a security screener's authority, and detain aircraft on the ground or recall an aircraft in flight should there be an immediate threat to security.

2.18 A second federal agency—the Canadian Air Transport Security Authority (CATSA)—plays a key role in security. Included in its responsibilities are the pre-boarding screening of passengers and the baggage and possessions they carry as well as the screening of airport workers entering restricted areas. CATSA can do this screening either directly or through a screening contractor. It is responsible for establishing the qualifications, training, and performance standards that security screeners must meet and for certifying that they meet them.

2.19 Many other organizations play a part in security. The RCMP and local police are responsible for law enforcement; local airport authorities are responsible for the physical security of airports; air carriers implement regulations intended to secure passengers, baggage, freight, and aircraft; cargo companies are responsible for the security of their operations.

2.20 Transport Canada is the policy-maker and regulator and, as such, occupies the lead role in air transport security.

2.21 The 2001 Budget allocated $2.2 billion over five years to strengthening aviation security. The most important measures taken by the government since September 11, 2001 include

- creating CATSA, through legislation, to take over passenger screening from the air carriers and also to screen non-passengers;
- deploying systems to detect explosives;
- providing airports with grants to improve airport security and policing;
- placing armed RCMP officers aboard some flights;
- improving aircraft cabin security;
- evaluating advanced technologies for airport security; and
- enhancing regulatory and oversight capacity.

Creating and operating CATSA accounted for $1.9 billion of the $2.2 billion allocated for aviation security. The remaining $300 million was to fund all other air security improvements.

Risk management has not been formalized

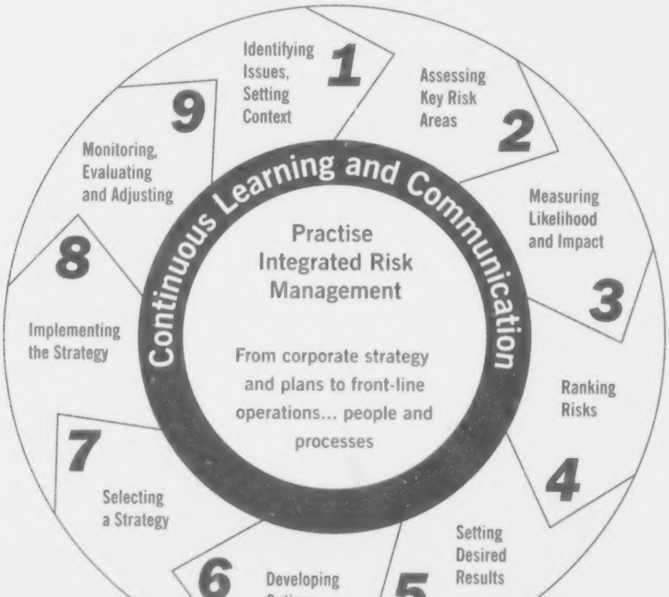
2.22 The Treasury Board Secretariat's Integrated Risk Management Framework calls risk management "a systematic approach to setting the best course of action under uncertainty by identifying, assessing, understanding, acting on and communicating risk issues."

2.23 The Framework describes a process to identify issues, assess key risks, measure the likelihood and impact of risks and rank them accordingly, define the desired results, and select and implement strategies for managing or mitigating the risks (Exhibit 2.2).

2.24 Our objective in auditing aviation security was to determine whether Transport Canada's oversight of the air transport security system is adequate. We expected to find that the system was based on appropriate risk analysis and that Transport Canada was taking the necessary measures to ensure compliance with its security regulations.

2.25 We found that Transport Canada's approach to assessing security risks in air transport (to the extent that it has done so) is consistent with the

Exhibit 2.2 A common risk-management process


1
Identifying Issues, Setting Context
2
Assessing Key Risk Areas
3
Measuring Likelihood and Impact
4
Ranking Risks
5
Setting Desired Results
6
Developing Options
7
Selecting a Strategy
8
Implementing the Strategy
9
Monitoring, Evaluating and Adjusting
Continuous Learning and Communication
Practise Integrated Risk Management
From corporate strategy and plans to front-line operations... people and processes

Source: Treasury Board Secretariat

Treasury Board Secretariat's Framework. However, it has not fully implemented formal risk management. At the time of our audit, one region of the Department was piloting a risk-based approach to managing the inspection process. Transport does have a general threat assessment that is updated annually by its intelligence directorate, which also sends specific notices and alerts to airports as needed. However, we did not find any comprehensive assessment of key risks or any measuring of the likelihood or potential impact of specific threats.

2.26 Transport Canada has done some work that partly meets the requirements of a sound risk management approach:

- An interdepartmental working group on aviation security was established in September 2003 to assess threats and determine appropriate action. However, its terms of reference limit it to assessing air carriers' applications for new overseas air routes. The working group has not been asked to develop an overall assessment of threats to aviation security.
- With the U.S. Transportation Security Administration, Transport Canada has assessed the potential impact of a specific threat as well as vulnerability to that threat, overall and at particular airports. This assessment met Treasury Board criteria but was limited to a single threat.
- Transport Canada relied on a series of teleconferences among senior security managers to deploy the additional security inspectors funded by the 2001 Budget and to supplement the existing minimum schedule of inspections. According to officials, they considered factors such as the size of airports, the number of flights, the riskiness of flight destinations, and the frequency of flights to the United States. While these decisions took into account the Department's experience and understanding of intelligence information, they were not documented as a formal risk analysis.

We also noted that the RCMP uses formal risk assessment in deploying its Aircraft Protective Officers aboard flights, except where carrying an officer is mandatory.

2.27 The assignment of inspection resources appears to be weighted toward risks from passengers and baggage. Risks from air cargo and general aviation (that is, small private and chartered aircraft) attract less scrutiny, despite the level of concern they have generated. Transport officials pointed out that they had doubled the number of cargo inspections and had implemented new programs of cargo security awareness with industry. Nevertheless, it is not clear to us that inspection resources and assignment of tasks have been allocated appropriately. Nor is it clear how funding for security inspection was allocated between major airports and smaller ones, when both are gateways to the entire system. Because the inspection program has not been based on a documented risk analysis, we could not conclude whether the number of inspectors and the frequency of inspections are appropriate.

2.28 Transport Canada officials told us that they had not done a wider analysis before allocating the 2001 Budget funding for inspection, because the federal government had emphasized passengers as the key risk and the Budget had directed funding only to passenger transportation. The officials told us they intend to begin a complete review of security for all modes of transportation in 2005 in order to develop a security strategy.

2.29 **Recommendation.** Transport Canada should complete a formal analysis of threats and risks to the entire air transport system and use the results as a basis for deploying resources and focussing enforcement efforts.

Transport Canada's response. Transport Canada recognizes the importance of risk management, which has been an essential foundation of its aviation security program since its inception in the 1970s. More recently, the Department has initiated a comprehensive Transportation Security Strategy, which will examine risk in all modes and activities within each mode. The strategy will include a formal threat-and-risk-analysis instrument that could be used in risk management decision making for regulatory, legislative, and enforcement activities (spring 2006). In the interim, Transport Canada will continue to rely on its inspectors and existing analytical capacity to address emerging security needs.

The security inspection program has been expanded

2.30 We reviewed how the security inspection system operates. We interviewed senior Transport security managers at five major airports and at national headquarters about the staffing of security inspection positions, training of security inspectors, and local ability to implement the inspection cycle called for by Transport policy. We reviewed organization charts and staffing plans for the airports we visited. We also reviewed headquarters' quality control program for security inspection.

2.31 Our review did not identify any major difficulty in local capacities to carry out the number of inspections required by headquarters. Positions were nearly all filled, and managers did not report any difficulty recruiting and retaining inspectors. Managers said the training program was good, a major improvement over the previous one.

2.32 We noted that the annual Comprehensive Security Review called for by headquarters since April 2004 had not yet been carried out. Transport officials said that several comprehensive reviews were conducted in 2001, one just after the September 11 attacks. Officials were concentrating on expanding the inspection service in 2004–05. The new inspection policy will come into effect fully in 2005–06.

2.33 Transport Canada established a three-person Quality Review division in February 2003 but we found that it had not yet done any quality reviews, though officials told us that in 2004–05 they were intending to complete two quality reviews in Toronto and Montréal. Failure to conduct a quality review of security inspections carries a risk that standards will not be enforced uniformly, with poor inspection quality as a result. Our review of inspection files in the airports we visited found several inspections that had never been properly documented and for which there was no evidence of completion.

Problems in enforcing corrective action

2.34 Transport Canada's security inspection system is the primary means for security managers to know whether the security system is meeting the regulated standards. We therefore assessed the Department's ability to analyze breaches of security and enforce corrective action when systemic problems become evident.

2.35 **Analysis of security breaches.** We assessed the quality of the data in the main inspection database (called SEMIS) to determine whether we could rely on it in our audit. We examined 110 files selected judgmentally at the five airports we visited. We also asked the senior Transport Canada security manager at each airport to comment on the accuracy of summary statistics generated by the SEMIS system.

2.36 We found that SEMIS data were completely accurate in only 60 percent of the files we reviewed. The most common error was misstating whether the investigation had been closed or not. Transport security managers at the airports we visited did not regard SEMIS as accurate, so they maintained their own local databases and files.

2.37 Transport Canada managers at headquarters acknowledged that the SEMIS database contained errors. Headquarters managers said they intend to clean it up but have not been allocated funds to do it.

2.38 Given the problems with SEMIS, Transport Canada replaced it in April 2004 with a new system called SEPIRS. The new system is intended to address the shortcomings of the old system, but data from before 2004 require validation to determine the extent of their inaccuracy.

2.39 We also asked Transport Canada security managers how they assessed risks and identified trends in non-compliance. At most locations, they use data from their own databases and perform their own analysis. Several complained that they had no access to data from other regions and therefore could not identify trends by specific carriers who operate nationally. Their main means of assessing trends in risks and non-compliance are the weekly conference calls by the senior security managers across the country and the monthly reports prepared by the Quality Review division.

2.40 The lack of an accurate central database has hampered Transport Canada's ability to assess emerging trends. Officials told us that the new SEPIRS system will allow monthly reports to be seen by all the regions.

2.41 **Problems in enforcement.** A security system must be able to not only recognize risk and non-compliance but also enforce timely corrective action. We therefore looked for issues that affected the overall performance of the enforcement system.

2.42 Security of passenger air travel is based on a number of security measures that include the gathering of intelligence, law enforcement by police, questioning by ticket agents, primary screening of passengers, secondary screening of some passengers, use of protective officers on some flights, and fortification of the flight decks of aircraft.

2.43 Transport Canada has not analyzed the overall effectiveness of its security systems; it has only one security performance measure in place: the "infiltration failure rate" of passenger screening. This is the rate at which screeners fail to detect "threat objects" such as a simulated knife, simulated gun, or simulated explosive device when the inspectors try to carry them through passengers screening. However, the Department has chosen to classify that measure and the related information; accordingly, we may not report it.

2.44 When Transport Canada's inspectors encounter a failure in CATSA's procedures, including an infiltration failure, an enforcement letter is issued to CATSA. Transport Canada has issued such letters to CATSA for failures to meet security standards. Examples include

- incidents where unauthorized persons gained access to secure areas;
- cases where there were failures to detect unauthorized objects with metal detectors;
- instances where employees did not keep adequate logs, communicated ineffectively, performed poorly, or lacked valid certifications or designations; and
- cases where screeners failed to conduct random tests properly. Transport Canada later issued an exemption to its regulations to recognize the difficulty of complying with the requirement for random testing while improving the screening process at the same time.

2.45 In Transport Canada's inspections of CATSA that were unrelated to infiltration tests, only three to four percent identified a deficiency that resulted in an enforcement letter. CATSA officials told us they considered some of those deficiencies to be minor. However, Transport Canada does not categorize its enforcement letters by importance.

2.46 Neither Transport Canada nor CATSA adequately tracked action taken in response to individual enforcement letters. Neither organization had a complete and accurate inventory, and the numbers of letters on file at Transport, CATSA, and in the Transport database did not agree. Neither agency could find responses to all the enforcement letters. We could not find responses to about 12 percent of enforcement letters related to infiltration tests and to 16 percent of letters addressing other deficiencies. CATSA officials did point out that they had changed procedures significantly in response to inspection results. During the audit, CATSA also began to track enforcement letters and its responses to them more closely.

2.47 Aspects of Transport Canada's enforcement model seem unsuited to dealing with a government agency that, like CATSA, is the sole provider of a security service. An air carrier or airport authority that showed persistent non-compliance would eventually be fined. However, Transport officials did not think monetary penalties against CATSA would be appropriate since, in their view, fines would inevitably redirect resources away from the delivery of CATSA's mandate. Further, because fines for security breaches are not disclosed, the officials felt that monetary penalties would have a limited impact on CATSA.

2.48 Transport officials told us they do not have a major problem with CATSA. Nevertheless, we found the following:

- Transport Canada has never established any system-wide performance standards for CATSA that would rate as satisfactory anything less than 100 percent compliance.
- Transport security officials expressed dissatisfaction with CATSA's performance in specific cases and have threatened to fine the agency.
- Transport Canada has never completed an assessment of CATSA's overall performance to determine whether additional enforcement measures are required.
- Transport staff were not aware of trends or patterns in the effects of enforcement actions.

2.49 We do not believe that Transport Canada's enforcement regime works well in the case of CATSA. No performance goals have been established. The Department's internal studies and analyses are not adequate, and there appear to be no effective sanctions available should education and encouragement fail.

2.50 **Recommendation.** Transport Canada should put in place system-wide performance measures that specify what it considers to be satisfactory performance by the Canadian Air Transport Security Authority (CATSA).

Transport Canada's response. Transport Canada has developed a comprehensive enforcement program, including monitoring and inspection, to ensure compliance with the rules. With respect to CATSA, Transport Canada has taken, and will continue to take, an incremental approach to enforcement. While Transport Canada does not consider monetary penalties to be necessarily the best compliance tool, it can take appropriate enforcement action, drawing if necessary on the range of legislative and administrative mechanisms available, including holding directors and officers accountable. In addition, Transport Canada is now developing system-wide qualitative and quantitative measures of performance by screeners and equipment, which will be reviewed on a regular basis. Measures will be finalized by early 2006.

Installation of explosives detection systems is going well

2.51 The 2001 Budget allocated over $1 billion to purchase, deploy, and operate advanced explosives detection systems (EDS) at airports across the country. These systems are to be in place before 1 January 2006.

2.52 Pre-boarding screening of passengers and the effects they will carry on board includes physical searches and machines that can detect minute traces of explosives residue.

2.53 "Hold-bag" screening is the security screening of luggage that passengers have checked to be stowed in the hold (cargo compartment) of the plane. Screening officers identify threat objects by using enhanced X-ray or CAT-scan machines and other explosives trace equipment or by physically searching the bag.

2.54 Part of CATSA's screening responsibility includes acquiring, installing, and maintaining explosives detection equipment at airports and ensuring compliance with the regulations and standards Transport Canada has established for EDS. Transport Canada monitors operations and equipment for passenger and hold-bag screening to ensure that the systems meet its standards.

2.55 Our audit looked at whether Transport Canada and CATSA each managed its part adequately in acquiring and implementing explosives detection systems. We reviewed five Class I airports (Vancouver, Montreal, Calgary, Ottawa, and the new Terminal 1 in Toronto); two Class II airports (Saskatoon and St. John's); and two Class "other" airports (Sydney and Lethbridge).

2.56 CATSA was to equip 89 airports across Canada for hold-baggage screening. It defined projects in these 89 airports and had completed about half of them at the time of our audit. CATSA reviewed the proposals from airports against its guidelines, proposed alternative solutions, and reached agreement with the airports on the installation of EDS. The airports were responsible for project construction and for installing the systems, and CATSA reimbursed them for their approved costs. We observed that project objectives were clearly defined, project implementation reports were given to CATSA's Board of Directors, and there was an information system to track whether projects were on schedule and to track the costs.

2.57 CATSA's capital budget was based on completing the defined projects but did not include EDS at the domestic portion of a major airport, which would be undergoing renovations first. Transport Canada told us that to protect vulnerabilities in the meantime, it will ensure a level of security equivalent to that in the rest of the transportation system. Proceeding in this way appears to be reasonable, avoiding the expense of putting new systems in place that would have to be removed during renovations and then reinstalled. However, the size of the financial obligation this approach creates for CATSA is not clear.

2.58 We expected that Transport Canada would have adequately defined the need for the EDS project and analyzed options. We found that it had identified the need for new EDS machines and considered EDS approaches, had done some of the research, and had analyzed options and chosen equipment well before September 11, 2001. It completed another options analysis after September 11.

2.59 We noted a lack of life-cycle-costing information and analysis by Transport Canada, and CATSA only recently began to analyze the costs of explosives detection equipment over its life cycle. While the choice of equipment was therefore based on incomplete information, we believe that given the emergency, the decisions were reasonable.

Marine security

2.60 At the time of the 2001 Budget, the government did not know exactly which aspects of marine security needed to be addressed and in what order of priority. As an immediate response, the Budget 2001 initiative identified a few "quick fix" improvements such as increased aerial surveillance of Canada's maritime zone. An initial investment of $60 million was allocated to marine security in the knowledge that a more comprehensive approach would be needed.

2.61 After about $25 million of this amount had been allocated to specific projects, an Interdepartmental Marine Security Working Group of senior officials conducted threat assessments, developed options, and made recommendations to ministers. The government responded by allocating an additional $172.5 million to fund improvements in marine security from 2003 to 2008.

2.62 This new funding is designed to improve

- awareness of what is happening in Canada's coastal waters (surveillance or domain awareness);
- security of port facilities and waterways;
- response time to events that threaten security; and
- rates of inspection of vessels, ports, and cargo containers.

2.63 Furthermore, the International Maritime Organization (IMO) developed international standards for the security of ships and port facilities. As a signatory to conventions under the IMO treaty, Canada became responsible for implementing the Automated Identification System (to identify vessels) and the International Ship and Port Facility Security Code. Our audit looked at the implementation of those two projects and a third, the High Frequency Surface Wave Radar installation.

Automatic Identification System for ships is being implemented

2.64 The International Maritime Organization requires that all ships of a certain size be fitted with an automatic identification system (AIS) that has transponders similar to those on aircraft. An AIS transponder broadcasts a message that identifies the vessel, its heading, and its speed. This continuous broadcast can be received by vessels, shore stations, or aircraft outfitted with AIS receivers. The completion of the Canadian Coast Guard's AIS shore-based receivers is expected to enhance Canada's ability to identify and track AIS-equipped vessels in its coastal areas.

2.65 The Canadian Coast Guard is installing equipment on shore to allow the tracking of AIS-equipped vessels up to 40 nautical miles from shore, at an estimated cost of $27.5 million over five years. The St. Lawrence Seaway Management Corporation has already implemented this system in the St. Lawrence River.

2.66 We have two observations. First, a threat and risk analysis by the marine security Working Group identified four priority areas, but the allocated funding was enough for only the top three; we did not see a plan for addressing the shortfall. Second, setting up a project management IT system and obtaining funding approvals encountered delays, but the Coast Guard intends to complete the project by its original implementation date.

2.67 Canada is a signatory to the International Convention for the Safety of Life at Sea (SOLAS); the new International Ship and Port Facility Security Code (ISPS); and amendments to both, adopted in December 2002 at the Diplomatic Conference of the International Marine Organization. Canada was required to implement, by 1 July 2004, the domestic ship and marine facility security requirements stipulated in the ISPS Code.

2.68 Transport Canada's implementation of the ISPS Code was achieved by incorporating it in the Marine Transportation Security Regulations under the *Marine Transportation Security Act*.

2.69 The Code and the Regulations apply to commercial vessels that weigh 500 tons (gross tonnage) or more and to marine facilities and ports that serve such vessels. Regulations require that these vessels and facilities complete security assessments and security plans and designate security officers.

2.70 Because Canada wants to harmonize its marine transportation regulations with those of the United States, it extended its regulations beyond the IMO requirements to also cover

- cargo vessels of 100 tons (gross tonnage) or more;
- vessels that tow barges carrying certain dangerous cargoes;
- vessels carrying more than 12 passengers; and
- marine facilities and ports that serve these vessels.

2.71 We expected Transport Canada to ensure that the design of the national framework for implementing the ISPS Code in Canada would comply with international requirements. We further expected it to ensure that Canadian ship owners and port facility operators would implement the national framework to meet international requirements and the regulations under the *Marine Transportation Security Act*.

2.72 We found that Transport Canada's regional offices and marine inspection officers maintained good relations with ships and port facility operators during the process of issuing a security certificate. Where security plans required additional preparation or the formal appointment of a ship or port facility security officer, interim security certificates were issued. Future demand for renewals of security certificates could place considerable pressure on Transport Canada's marine security inspectors to complete the required inspections before the renewal deadline.

2.73 The ISPS Code includes standards to classify and increase security levels in response to threats, as well as procedures to be followed until information becomes available that justifies a return to lower levels. We found that the criteria used by Transport Canada to increase marine security levels are not defined clearly.

2.74 Overall, Transport Canada successfully completed the necessary procedures for issuing security certificates to all ship and port facility operators required to have them, and it met the ISPS Code Agreement deadline of 1 July 2004.

High Frequency Surface Wave Radar faces funding and regulatory problems

2.75 On the basis of its threat and risk analysis, the marine security Working Group supported the development of High Frequency Surface Wave Radar (HFSWR) that, as a long-range, over-the-horizon radar, can provide real-time, continuous radar surveillance extending up to 200 nautical miles.

2.76 National Defence has worked for 15 years on a research project to develop radar effective over water to a distance of 200 nautical miles. The readiness trial was completed in August 2004, and the Department has informed us that system-acceptance tests were completed recently. The results, while promising, have not yet been analyzed completely.

2.77 We examined this initiative as a capital project, assessing the

- needs definition,
- options analysis, and
- project management and definition.

2.78 We note two concerns about the ongoing development of the HFSWR project:

- A National Defence study indicates that full coverage would cost a total of $220 million rather than the $43.1 million the Department was allocated. National Defence recommended acquiring and installing equipment at only four to six sites. Research has shown that HFSWR does perform to expectations during normal circumstances, but it does not operate to its full range under certain conditions such as at night, during meteorological disturbances, and in heavy seas. Increased costs and reduced capability leave major gaps in the coverage of Canada's coastlines. However, National Defence believes that this radar provides additional information not available from existing surveillance systems. We were unable to obtain evidence that explains how gaps in coverage would be closed, the cost of closing them by other means, or the security implications of leaving them unaddressed.
- National Defence has not yet obtained a permanent licence from Industry Canada to operate the system. A permanent licence can be issued only after Industry Canada is assured that the system will not interfere with the operations of other licensed users of the same radio-frequency band.

Federal emergency preparedness

2.79 The front line of defence in a terrorist attack is the first responders—the police officers, firefighters, emergency medical care providers, and emergency management officials who make up specially trained hazardous materials teams, urban search and rescue units, bomb squads, and tactical units. Most of them work for a provincial, territorial, or municipal government.

2.80 The National Security Policy of April 2004 says that first responders are at the heart of the emergency management system; the federal government "will often play only a supporting role in emergency management to provinces and territories, communities and the private sector." The Policy identified the need to modernize the national system of emergency management.

2.81 On September 11, 2001, Canada's approach to emergencies was based on a Cold War approach. The system was based on a highly decentralized and distributed division of responsibilities among front line responders, provinces and territories, and lead departments at the federal level. Although the 2001 Budget had allocated significant additional funds to improving emergency preparedness, by 2003 the government recognized that organizational improvements in this area would be needed to make the desired progress. It therefore removed the Office of Critical Infrastructure Protection and Emergency Preparedness (OCIPEP) from National Defence and merged it with the Solicitor General and the National Crime Prevention Centre to form Public Safety and Emergency Preparedness Canada (PSEPC).This new department is intended to improve the integration of government efforts across the public safety program, linking the various federal programs together more closely.

2.82 In its first year of operation, PSEPC initiated a major legislative program to give substance to the government's goal of "a seamless national emergency management system." The Department has also launched the Government Operations Centre, begun the development of the National Emergency Response System (NERS), and improved the readiness and exercise program. We report here on the progress made and work still to be done below. Many of the gaps and implementation problems our audit found originated in the program before the new department was established.

2.83 The 2001 Budget allocated $513 million over five years to federal and national efforts to prepare for chemical, biological, radiological, and nuclear threats, or CBRN (Exhibit 2.3). The funds were to enhance existing laboratory networks so they could more quickly detect and identify biochemical threats. The government also decided to buy new protective equipment for emergency response teams and improve their training.

2.84 In this audit, we looked at whether federal programs to enhance emergency preparedness for a CBRN event have been managed adequately. We also looked at critical infrastructure protection. Budget 2001 had allocated $396 million to enhancing the management of critical infrastructure protection. We looked at whether threat and risk assessments had been used to prioritize investments in infrastructure and at the progress achieved to date.

2.85 We did not examine progress made by provincial, territorial, or municipal governments. Our findings relate solely to the federal government.

Exhibit 2.3 Chemical, biological, radiological, and nuclear events

The federal government has recognized that Canada is not immune from the threat of terrorism following September 11, 2001, and there is growing concern over the threat of chemical, biological, radiological, or nuclear (CBRN) terrorism.

Potential CBRN weapons encompass a range of agents:

- biological (such as smallpox and anthrax)
- chemical (such as sarin gas disseminated by explosives or aerosols)
- radiological/nuclear (such as radioactive material scattered by conventional explosives)

As with other types of emergencies, responsibility for CBRN-incident response is shared by federal, provincial, and municipal governments. Civil emergencies are initially dealt with by first responders—police, firefighters, and emergency medical personnel. If additional assistance is required, local officials contact the province or territory, who in turn can seek assistance from the federal government.

Source: Government of Canada, February 2003

2.86 To examine emergency preparedness for a CBRN incident, we looked at three areas:

- chain of command—that is, who is in charge of the response to an incident;
- federal and national capacity to respond to an incident (national capacity being the combined resources of federal, provincial/territorial, and municipal agencies); and
- the testing and exercising of response plans.

The chain of command remains complex

2.87 We expected to find a clearly established chain of command to guide the federal response to a CBRN incident. This would mean that federal roles and responsibilities would be clearly defined and would link consistently with response plans of provinces and territories.

2.88 Canada's approach to managing emergencies has been based on a division of responsibilities among first-line responders at the municipal and provincial/territorial levels and the lead departments at the federal level.

2.89 The National Security Policy stated the problem clearly:

> National emergency co-ordination currently suffers both from the absence of an effective federal-provincial-territorial governance regime and from the absence of commonly agreed standards and priorities for the national emergency management system.

The government is taking steps to rectify these issues, but we found that they go only partway to establishing a clear command and control structure.

2.90 Before December 2003, the nature of an emergency determined which federal department had the lead role in managing the response. Health Canada would manage a biological, radiological, or nuclear emergency and Transport Canada the cleanup of a transportation accident involving biological, chemical, or radiological materials. Natural disasters would be managed by the Office of Critical Infrastructure Protection and Emergency Preparedness (OCIPEP) and incidents affecting the food chain by the Canadian Food inspection Agency. If any of these incidents proved to be an act of terrorism, leadership would immediately shift to the Department of the Solicitor General.

2.91 December 2003 was when, as already noted, OCIPEP was moved out of National Defence and merged with the Department of the Solicitor General to create Public Safety and Emergency Preparedness Canada (PSEPC).

2.92 As part of creating PSEPC, the government put forward legislation (Bill C-6) that would provide for the leadership role of the Minister of Public Safety in the event of a national emergency. The Minister would be responsible for providing strategic co-ordination while respecting the Prime Minister's prerogative in matters relating to national security and the statutory authorities of other ministers. According to officials, however, Bill C-6 does not provide the specific powers needed to activate this role. Those powers are expected to be contained in revisions to the *Emergency Preparedness Act* on which PSEPC plans to begin consultations in the spring of 2005.

2.93 **Recommendation.** Public Safety and Emergency Preparedness Canada should finish drafting the revisions to the *Emergency Preparedness Act* as soon as possible to finalize the definition of the minister's powers and responsibilities.

Public Safety and Emergency Preparedness Canada's response. The modernization of the *Emergency Preparedness Act* is a commitment under the National Security Policy. A discussion paper has been drafted outlining the proposed powers and authorities of the Minister of Public Safety and Emergency Preparedness. The paper reflects the emerging requirements of emergency management. Consultations with stakeholders will begin in spring 2005.

2.94 **A new national response system**. PSEPC is developing a new national emergency response system (NERS) aimed at eliminating overlap and duplication in the crisis- and consequence-management stages of response (Exhibit 2.4). It intends to standardize all federal response plans and their links to provincial plans, but it has not committed to a completion date. We were told that the National Counter-Terrorism Plan and the National Support Plan will be revised and become part of the NERS, but currently the NERS is not in a form that could replace an existing federal plan.

Exhibit 2.4 National Emergency Response System (NERS)

NERS is an "all hazards" response structure designed to co-ordinate the federal response to emergencies of national importance, including support to provinces, territories, and the federal departments involved. It will provide for national policy direction and strategic co-ordination.

A national response within NERS may also include issuing a notification, a warning, and/or an alert to the public.

NERS will not change existing departmental mandates but rather will co-ordinate mandates in a harmonized federal response.

NERS is based on functionally oriented groups staffed by personnel from Public Safety and Emergency Preparedness Canada and other federal departments. The response structure can be activated partially or fully, using escalating levels of operations that correspond to emerging, imminent, or occurring emergencies. Each response level represents an increase in the federal capability and capacity to respond.

Source: Public Safety and Emergency Preparedness Canada

2.95 PSEPC has conducted extensive consultation on the NERS within the federal government and with the provinces and territories. We were told that the government has approved the approach in principle. Officials have also told us that they are developing the new system's structure and hope to get formal Cabinet approval sometime in spring 2005. In our opinion, if NERS is to work it must have official sanction and, equally important, support from all federal agencies involved in responding to a national emergency—which, by nature, can involve several agencies. Until the government fully implements the NERS, elements of the federal response will still be managed by individual departments.

2.96 **Recommendation.** Public Safety and Emergency Preparedness Canada should work with the other federal agencies to clarify the command and control structure governing the federal response to emergencies.

Public Safety and Emergency Preparedness Canada's response. Leadership will be exercised through the command and control structure of the National Emergency Response System (NERS). In addition, changes to the *Emergency Preparedness Act* will reinforce the authority of the Minister of Public Safety and Emergency Preparedness to co-ordinate the actions of all federal players in emergencies of national significance.

2.97 **Recommendation**. Public Safety And Emergency Preparedness Canada should obtain its federal partners' formal agreement to the National Emergency Response System as soon as possible.

Public Safety and Emergency Preparedness Canada's response. We agree with the recommendation. A formal agreement to adopt the National Emergency Response System (NERS) will be sought with federal partners. There will be a good opportunity to validate the NERS through Exercise Triple Play in April 2005. In addition, provincial and territorial partners have agreed with the approach taken by the federal government.

2.98 **Co-ordinating operations centres.** We identified 27 operations centers in departments across the federal government whose operating capacities and technologies vary. We noted a lack of integration among these centres. In September 2001, OCIPEP did not have secure communications with these federal operations centres or with those of Canada's allies.

2.99 The National Security Policy of April 2004 announced the creation of a new Government Operations Centre in Public Safety and Emergency Preparedness Canada (PSEPC) to manage the federal response to emergencies. As of September 2004, the Centre has secure communications with other federal operations centres and with the United States and the United Kingdom. Co-ordination between individual departments' operations centres and the Government Operations Centre is an important element of the NERS.

2.100 The Centre's basic monitoring activities began in September 2004, but its emergency response capacity has not been validated in an exercise. It does not have command and control authority over the federal response when the lead resides in another federal department. In anticipation of the legislative changes, PSEPC officials are developing criteria for use of the Centre by other government departments as well as guidelines for transferring the federal lead to PSEPC when that is considered to be in the national interest. We note that the Government Operations Centre (GOC) is a critical component of the NERS concept of operations, which calls for the GOC to be proactive in conditions of emergency or uncertainty. Each of the response levels provides additional resources to ensure that the GOC has the capability and capacity to co-ordinate timely readiness and response activities. In practical terms, as the response level increases, the staffing and resource levels of the various functional groups will also increase.

Integrated plans are essential to an effective response

2.101 Another important element of the NERS is the link between national and departmental emergency plans.

2.102 Managing the federal response to a CBRN event could draw on a number of emergency plans. For example, we reviewed the following:

- National Counter-Terrorism Plan
- National Support Plan
- Federal Nuclear Emergency Plan
- Food and Agriculture Emergency Response System

2.103 We found that departmental plans are vague on how they would link together to form a co-ordinated federal response. Section 7 of the *Emergency Preparedness Act* requires that departments prepare emergency response plans for areas within their mandates. We noted a potential, as emergencies develop and implicate more departments and agencies, for conflict between having to work together with other departments and supporting the line responsibilities of their own mandates. Officials at PSEPC could not show us an inventory of departmental emergency response plans that could be activated in the event of a CBRN terrorist event. Nor could they provide us with an analysis showing how, in a complex emergency involving several departments, the plans would work together to achieve a seamless federal response.

2.104 To achieve a national response, federal response programs need to be integrated not only across departments but also with those of other jurisdictions. We expected to find that federal response plans would link across jurisdictions consistently. However, we found the National Counter-Terrorism Plan and the National Support Plan to be inconsistent in the level of detail and the depth to which they link with response plans of the provinces.

2.105 **Recommendation.** Public Safety and Emergency Preparedness Canada should work with its federal partners and the provinces and territories to improve the co-ordination of response plans.

Public Safety and Emergency Preparedness Canada's response. We agree with the recommendation. Work has started on improving the co-ordination of response plans with provinces and territories. This initiative is also one of the action items flowing from the Federal-Provincial-Territorial Ministerial Meeting on Emergency Management, held on 24 January 2005.

Building capacity to respond to terrorist events

2.106 To improve the national capacity to respond to CBRN events, the federal government chose two areas of action: enhancing the capacity of federal agencies to respond, and increasing the capacity of provincial and municipal first responders.

2.107 The $513 million that Budget 2001 provided to enhance CBRN equipment and response capacity was allocated to a number of federal departments. The CBRN Research and Technology Initiative was created to distribute some of the funding and to allocate research and development projects. The RCMP, Canadian Forces, Health Canada, and Transport Canada were specifically tasked with developing a CBRN response capability.

2.108 Risk management principles acknowledge that although risk cannot be eliminated, enhancing protection from existing or potential threats can help reduce it. Accordingly, a risk management approach is a systematic process to analyze threats, vulnerabilities, and the criticality (or relative importance) of assets to better support key decisions.

2.109 We expected to see that programs designed to enhance capacity had been based on risk analyses and scenarios setting out what could happen, how departments should respond, and what resources the responses would require. Threat and risk assessments are key tools to determine where and how to establish programs.

2.110 **The RCMP is increasing capacity.** The RCMP was allocated $23 million over five years to equip and train first responders in its force and to develop specialized response teams. We found that it prioritized its capacity investments according to threat and risk analysis.

2.111 The RCMP developed a CBRN doctrine and concept of operations as a basis for its equipment purchases and training. It has now equipped and trained 3,600 members to a basic response level and is scheduled to equip and train all 15,000 members of its regular force by April 2006. CBRN response training is now included in its training curriculum and, effective October 2004, all new graduates have received this training.

2.112 The RCMP has also equipped and trained four specialized two-member CBRN emergency response teams that support local first responders. Its plan to equip and train such teams was based on threat and risk assessments. The original assessment of the need for a national response capacity determined that eight teams of six to eight members each were needed. However, we were told that funding was provided only for a smaller response capacity.

2.113 The teams are equipped with CBRN-capable bomb suits; protective suits; detection, mitigation, and neutralization devices; and the capability to conduct forensic scene examinations in a CBRN environment. However, the small number and size of the teams and the large geographic areas to be covered could significantly delay the response in some regions. The RCMP has not yet determined how it will meet the identified need.

2.114 **Recommendation.** The RCMP should improve its capacity to respond to chemical, biological, radiological, and nuclear emergencies.

RCMP's response. The RCMP originally estimated the need for highly specialized CBRN response teams to be deployed regionally across Canada to supplement other response capacities. At the same time, the RCMP identified various other CBRN response requirements.

Since that time, we have made extensive progress toward training and equipping all RCMP members as CBRN first responders, able to assess and undertake primary containment of possible CBRN incidents.

The specialized Regional Response Teams are located in the Pacific, North West, Central, and Atlantic regions. They operate in conjunction with front-line responders and the Joint National RCMP/DND CBRN Response Team to provide a measured response in all parts of Canada.

The RCMP will assess the optimum size of the Regional Response Teams, taking into account current levels of training, including with partner agencies, as well as integration, new technologies, and availability of resources.

2.115 **National Defence has a limited role.** In 2002, the National CBRN Response Team was established, combining the resources of three federal departments. The RCMP has the overall lead and handles CBRN explosive ordinance and forensic evidence. The Public Health Agency of Canada (PHAC, created in September 2004 to assume some of Health Canada's responsibilities) provides emergency medical teams and a transportable lab to deal with biological hazards. National Defence provides its Joint Nuclear, Biological and Chemical Defence Company, whose primary mission is to support the RCMP, the first-responder community, and civil authorities with a dedicated military capability to respond to CBRN terrorist activities. Exhibit 2.5 provides more detail on the role of the Canadian Forces.

Exhibit 2.5 The Role of the Canadian Forces

While the entire Canadian Forces is potentially available to provide support, its primary role is not that of a first responder. The Forces can provide general support to provinces and territories to deal with the consequences of a chemical, biological, radiological, or nuclear event at their request but are not specifically tasked with this role. In December 2003, the government announced "an increase in the Canadian Forces Reserves available for civil preparedness, including a capacity to deal with natural disasters and local emergencies." The Reserves are not currently equipped and trained for this capacity, but National Defence is studying the feasibility of using them.

Source: National Defence

2.116 Budget 2001 allocated $30 million to National Defence to establish a new military unit, the Joint Nuclear, Biological and Chemical Defence Company. This military company can be used to support other government departments and the provinces and territories in their responses to a CBRN terrorist event. An evaluation by National Defence found "serious command and control issues" with the new unit.

2.117 **Emergency medical teams have not been created.** In December 2001, Health Canada was allocated $501,000 to develop Health Emergency Response Teams—rapid response teams of physicians, nurses, and medical technicians. During emergencies, these federally trained medical teams are to come to the support of local health care workers. A national office was established and given a broad mandate to oversee funding, recruitment, equipping, and deployment of the teams. In January 2003, Health Canada was allocated $626,000 annually to train health care workers in the prevention and treatment of smallpox. As part of this funding, the Department was to train provincial Smallpox Emergency Teams to immunize the public in the event of a smallpox epidemic. At the time of our audit, neither Health Emergency Response Teams nor the Smallpox Emergency Teams had been established. In both cases, officials from Health Canada now with PHAC told us that there are legal issues that have yet to be resolved.

2.118 Health Canada and the Public Health Agency of Canada are mandated to support the provinces and territories in managing the public health aspects of an emergency. A Budget 2001 allocation of $88.6 million over five years is targeted to strengthening their public security and anti-terrorism response capacity. We expected that investments would be prioritized on the basis of risk assessments and casualty scenarios, but we found limited use of such analyses.

2.119 PHAC manages the National Emergency Stockpile System (NESS) previously managed by Health Canada. The NESS is a cache of medical equipment and pharmaceuticals contained in warehouses across the country and ready to be sent to provinces and territories at their request. Budget 2001 allocated $7.9 million to replenishing this stockpile. We expected that the contents would be based on a risk assessment and that plans would be in place to ensure timely, efficient distribution.

2.120 It is not clear what role the stockpile plays in the emergency management system. Neither its objectives nor its contents are managed under a federal emergency response plan. The contents of the stockpile are not based on a risk assessment. The stockpile contains no CBRN equipment, such as protective gear, detectors, and decontamination showers and apparatus. It does contain a quantity of CBRN pharmaceuticals and medical countermeasures.

2.121 During our audit, PHAC completed the first stage of a strategic analysis examining the role of the National Emergency Stockpile System.

2.122 **Transportation issues**. A study looking at emergency transportation issues concluded that existing transportation arrangements for the NESS are "moderately reliable." Parts of the national emergency stockpile were moved after September 11, 2001 to allow for their distribution anywhere within 24 hours. Previously, the transportation and distribution of supplies in an emergency had been problematic and arranged on an ad hoc basis. For example, in response to the grounding of so many civilian aircraft on September 11, provincial officials requested supplies from the NESS. The only viable option for moving them was a military airlift. The plan was to load transport trucks with beds and blankets and send them to the Ottawa airport. Late on the night of September 11, it became clear that the trucks would have to be sent instead to CFB Trenton, because the Canadian Forces no longer kept equipment at Ottawa to load aircraft. A departmental after-action report concluded that these logistical problems resulted in a significant delay in shipping some of the supplies. Our view is that in an emergency, time can be a critical factor and it is not a good point at which to develop alternative distribution arrangements.

2.123 We recognize that the complexity of moving NESS supplies efficiently in an emergency is affected by the distances involved, the mode of transport, and the need for specialized personnel. In past emergencies, NESS managers have relied on the military to airlift supplies. However, the military's operational commitments can limit the availability of aircraft, so it cannot guarantee immediate transportation of NESS supplies. PHAC has not secured alternative airlift arrangements.

2.124 One exercise we reviewed noted the risks involved in shipping medical countermeasures by commercial aircraft. Officials told us that they are developing an agreement with the RCMP to ship emergency drugs in its aircraft.

2.125 We noted that as part of developing the National Emergency Response System, work is beginning on a National Emergency Transportation System (NETS). The NETS task is to address the need for a comprehensive transportation service within 24 hours. Public Safety and Emergency Preparedness Canada now has the lead in developing the NETS.

2.126 **Recommendation**. The Public Health Agency of Canada should co-ordinate the management of its National Emergency Stockpile System (NESS) with other federal agencies and include the NESS in the National Emergency Response System.

Public Health Agency of Canada's response. PHAC is working closely with Public Safety and Emergency Preparedness Canada on a number of fronts, including input into the development of the National Emergency Response System (NERS) and a National Health Emergency Management System. Part of that process will include ensuring that the NESS is closely linked to the emergency response activities outlined in the NERS.

2.127 **Recommendation.** Based on risk assessments and casualty scenarios, the Public Health Agency of Canada should update the contents of the national emergency stockpile as soon as possible. It should also secure arrangements for the transportation and distribution of supplies during emergencies.

Public Health Agency of Canada's response. PHAC is currently undertaking a strategic review of the NESS that includes a review of the contents of the stockpile. The strategic review, to be completed in 2006, will include risk assessments (initial risk assessment completed November 2004) and casualty scenarios. Emergency transportation of NESS supplies is being addressed through the National Emergency Transportation System (NETS).

PHAC' s Regional Emergency Response Co-ordinators will soon be developing NESS provincial and territorial emergency transportation plans in collaboration with each jurisdiction.

Use of the Special Access Program is inappropriate

2.128 Most CBRN medical countermeasures are not licensed for use in Canada; they are imported from the United States through the Special Access Program (SAP). For example, NESS managers use SAP to supply first responders with CBRN medical countermeasures. The Special Access Program was designed to give doctors access to drugs not licensed for sale in Canada, with control based on one doctor prescribing drugs for one patient. It was not designed for mass distribution of unlicensed drugs as medical countermeasures.

2.129 **Recommendation.** Health Canada should establish an appropriate legal structure for providing unlicensed drugs in an emergency.

Health Canada's response. Agreed. Health Canada proposes to develop the regulatory authorities, in consultation with stakeholders, to enable the Minister to authorize a block release of products that have not been approved for sale in Canada for the purpose of responding to public health emergencies. As well, Health Canada proposes to develop new regulatory authorities needed to authorize "emergency use" products for the medical countermeasures context.

Smallpox vaccine stockpile is still being completed

2.130 Following Budget 2001, Health Canada was allocated up to $48 million to develop smallpox vaccines and plans for their use and to purchase vaccine-related supplies. The use of smallpox virus as a biological weapon was identified as a risk, and scenarios were developed that projected up to

10 million casualties. In March 2003, a contract was awarded for the procurement of smallpox vaccine.

2.131 Due to problems in the manufacturing of the vaccine, Health Canada received only 5.7 million of the 10-million-dose requirement. It paid for only the doses it received. PHAC, now responsible for the stockpile, is not buying more vaccine to make up the shortfall; it is investigating the possibility of doing this by diluting the vaccine it has. At the time of our audit, it did not have in stock the 10 million doses identified as the required number.

2.132 Under the smallpox vaccine program, Health Canada was to negotiate with the provinces by April 2004 on plans to administer the vaccine. At the end of our audit in December 2004, the plans had not been completed by PHAC.

2.133 **Recommendation.** The Public Health Agency of Canada should determine how to meet its identified requirement for smallpox vaccine.

Public Health Agency of Canada's response. A decision on future procurement will be based on the results of the clinical trials of the current stockpile, a new risk assessment, and the results of the ongoing monitoring of smallpox vaccine research and development in 2006. In the interim, there is an adequate stockpile of smallpox vaccine and global commitment to assist in the event of an outbreak to ensure public safety and security.

A research and technology initiative needs to assess capacity gaps

2.134 The CBRN Research and Technology Initiative (CRTI) is a five-year, $170 million fund that Budget 2001 established to address CBRN threats. It involves 17 federal departments and agencies, led by Defence R&D Canada, an agency in National Defence. The CRTI is mandated to strengthen Canada's preparedness for, prevention of, and response to a CBRN attack. Funding (aside from $9.5 million for program administration) was divided among three main priorities: improving the technological capacity of federal laboratories ($27.5 million), accelerating the delivery of technology to first responders ($38 million), and investing in research and development ($95 million).

2.135 Forty federal laboratories participate in the initiative under a memorandum of understanding. We expected to find that the scheduling of investments in laboratory capacity had been guided by a risk assessment and gap analysis.

2.136 We found that between January and March 2002, a threat and risk analysis by the CRTI identified gaps in the federal laboratory capacity. Three clusters or groupings of departmental laboratories were then established according to their chemical, biological, or radiological/nuclear capabilities. The laboratory clusters identified the technologies or capacities that each was to develop. The CRTI Steering Committee then approved funding proposals based on an agreed-upon risk assessment.

2.137 Of the $27.5 million in total funding allocated to acquiring technology in federal laboratories, the CRTI committed 77 percent in the first two years to addressing the identified gaps. But how all the labs will work together and use this technology in an emergency has not yet been clearly defined.

2.138 A Health Canada study of how the cluster of biological laboratories functioned during the September 2003 SARS crisis indicated that the clustering of laboratories improves the response to an emergency. The study report noted that more rapid analysis, and therefore more rapid prevention and mitigation measures, were possible because the cluster members involved in the incident were aware of the capacity and capabilities outside their organizations that they could call on to assist during the incident. We found that how the laboratories in the biological cluster and the chemical cluster will work together is still being developed. Cluster managers noted that the number of departmental response plans and the inconsistencies among them created problems for the laboratories in working together. They identified a tension between working together and supporting their operational mandates.

2.139 The CRTI was also mandated to accelerate the delivery of technology to the first responder community. It developed a risk analysis known as the consolidated risk assessment to prioritize projects, and we found the analysis to be adequate. The consolidated risk assessment is updated every year to guide the annual selection of projects.

2.140 By April 2004, the CRTI had funded 19 projects totalling $16.5 million to develop technology for first responders. It had also committed to funding 22 research and development projects totalling $17.1 million. These projects typically follow a two- to four-year cycle, with completion of the first projects scheduled for November 2004. However, Budget 2001 did not include funding to acquire equipment based on the technology developed or accelerated by the CRTI. The $10 million allocated in Budget 2001 for the purchase of CBRN equipment was for only two years, before any CRTI projects would be completed. The CRTI is not designed or mandated for mass distribution of technology to first responders.

Federal programs for first responders have progressed slowly

2.141 Budget 2001 allocated funds to build a response capacity not only in federal departments but also at the local level. It set aside $59 million over five years for CBRN training of first responders, $20 million over five years to develop a national capability for heavy urban search and rescue, and $10 million over two years to buy CBRN detection and decontamination equipment and protective clothing for first responders.

2.142 **Consulting first responders.** In late 2001, officials from OCIPEP, the Department of the Solicitor General, and National Defence met with first responders in eight Canadian cities. Their aim was to develop ways of strengthening the national capability to manage the consequences of terrorist attacks. The report that summarized these meetings noted the urgent need for a clear federal policy on enhancing the capacity of first responders to deal with a CBRN incident. It concluded that no jurisdiction had the capacity to deal with mass casualties.

2.143 The report stated that training was the most critical part of preparing for CBRN threats, and it was lacking across the country. All first responders, including health care professionals, needed basic training in CBRN awareness. Further, federal leadership was urgently needed to establish training standards or guidelines so that all those who received training would be trained to the same degree. Standardized training was seen as the way to ensure that different jurisdictions could co-ordinate an integrated response.

2.144 First responders were said to be looking to the federal government to establish standards or guidelines for equipment as well. The report said it was clear that first responders were aware of the need to ensure that their equipment could interoperate with that of other jurisdictions when necessary.

2.145 The report also said that the current arrangement for funding first responders' CBRN equipment (including heavy urban search and rescue equipment) through the Joint Emergency Preparedness Program was too slow and cumbersome to be effective. It contended that a major overhaul of the program as it existed then was necessary for the timely provision of equipment. Furthermore, any funding model should take into account maintenance and longer-term replacement costs and allow for flexibility.

2.146 We spoke with first responders primarily at the municipal level. We learned that they are well aware of the need to work together. First responders told us about new initiatives and co-operation agreements and protocols. They have developed new plans and revised others. In addition, PSEPC officials explained that they have held cross-country consultations aimed at improving program delivery and have been working to improve the delivery of funds.

2.147 **Heavy urban search and rescue (HUSAR).** Heavy urban search and rescue capacity is the location and removal of trapped persons in collapsed structures, using dogs and sophisticated search equipment. HUSAR capacity has increased slowly.

2.148 Budget 2001 allocated $20 million over five years to develop a capacity for search and rescue in eight major cities. This investment was managed through an existing shared-cost program; the federal share was 75 percent. Under the Joint Emergency Preparedness Program (JEPP), the federal government co-funds provincial proposals. Shared funding of HUSAR equipment has proved to be problematic because of its high capital cost and the continuing costs to the municipalities of operating and maintaining it. Even a 75-percent federal share of the capital expenditure has proved insufficient to allow municipalities to take up the federal funds available. We found that at 1 April 2004, the provinces, territories, and municipalities had used less than 50 percent of the available funds.

2.149 We expected to find funding targeted to high-risk communities and guidance provided to them on identifying the capacity they need.

2.150 We found that the former OCIPEP had developed HUSAR team profiles and identified the needed equipment. Proposals by the cities for HUSAR funding were approved based on an analysis of the gap between existing and targeted capacities. Highest priority was assigned to five of the eight cities identified in the initial risk assessments. A sixth team is being developed, and the remaining two cities have expressed an interest in participating.

2.151 Providing CBRN equipment to first responders. OCIPEP used its existing Joint Emergency Preparedness Program (JEPP) to fund the purchase of $10 million in CBRN equipment for provincial and municipal first responders. It chose JEPP as the funding vehicle because, as an existing program, it could deliver funding quickly. The funding was for only two years, and the funds for the first year were received in the last quarter of the year.

2.152 OCIPEP received proposals from all provinces and one territory; their costs would total more than the $10 million available. Since the federal response is to support provincial and local authorities, we expected to find a list of provincial and municipal resources and capabilities—information that would then guide the distribution of federal funding to develop local capacities in areas most at risk. The information could also be used to develop goals for national preparedness, along with measurable performance indicators.

2.153 We did not find a risk analysis to guide funding decisions. We found that OCIPEP had not developed performance benchmarks for CBRN response teams or identified gaps in the response capacities of high-risk communities. Officials informed us that OCIPEP had relied on the expertise of provinces and territories to identify gaps in their respective jurisdictions. Rather than develop, fund, and equip a national first response capacity in a select number of cities as it did for HUSAR, OCIPEP spread the funding across regions, thereby diluting the response capacity.

2.154 Halfway through the two-year program, the CBRN Steering Committee began using provincial population percentages to guide its allocation of funds. OCIPEP officials told us that this was meant to achieve proportionate distribution of the funds across the country. However, we found that in the first year, the funds had been allocated to the provinces that had submitted proposals first. Early allocations to provinces with low populations meant that funding by provincial population percentages was not achieved. Moreover, this approach was not based on risk.

2.155 Although provincial populations were used to allocate funding, the funds were not then directed to the high-population centres in the provinces or to areas of highest risk. Across the country, cities with populations below 300,000 received 40 percent of all the funds.

2.156 Equipment guidance is lacking. We expected that to help first responders make informed choices in their purchase of off-the-shelf response equipment, the federal government would provide guidance on equipment as a means of creating a national **"surge" capacity**. Ideally, the types of equipment used by response teams across the country—protective equipment; chemical, biological, and radiological detectors; and communications equipment—would be compatible and interoperable with

Surge capacity—Surge capacity refers to the ability of emergency response services to aid and support each other. Mutual aid can encompass the personnel, equipment, and resources need to provide relief to overwhelmed emergency services during a major incident. Interoperability and compatibility of protective equipment may be critical in large incidents, as in the case of respirators at the World Trade Centre in September 2001. Promoting the standardization of protective equipment would support equipment sharing in the field among response services. It would make the use of supplementary equipment delivered to a major event site (from federal caches, for example) possible as well, by assuring its compatibility with existing gear and requiring less training and fitting in the field.

Source: Protecting Emergency Responders, Santa Monica, CA RAND Corporation, 2003 equipment in other jurisdictions. But because standards were not available, we expected to find a list of recommended equipment as a resource for responders at all levels of government. It should be noted that in 2002, performance standards for civilian use of CBRN equipment were not readily available. PSEPC officials also pointed out that the international community is struggling to develop technical standards for CBRN equipment and that the community considers this to be a long-term problem.

2.157 Based on its consultations with local first responders, the federal government knew they needed its leadership in developing a response to terrorism. When OCIPEP first announced that CBRN equipment would be funded, it said it would develop national guidelines for the acquisition of equipment and training—guidelines that were never developed. While OCIPEP had gathered some information on best practices for CBRN teams, it did not share the information with the provinces during the JEPP funding process. It offered only ad hoc advice on equipment selection. In summer 2004, officials said they were concerned that recommending specific types of response equipment could create a liability for the federal government.

2.158 Each province submitted its own proposals for equipment purchases, specifying the type and quantity of equipment its response teams needed. In the absence of federal guidelines on performance and cost, we found a wide variation in the types and cost of equipment purchased across the country.

2.159 For example, the costs of Level A suits to protect against chemical and biological hazards ranged from $700 to $7,200, with no explanation of the cost difference. Different jurisdictions bought different detectors that provided different levels of performance at different costs. One city purchased a complex chemical detector for $180,000. However, its proper operation requires highly specialized training and ongoing maintenance and, in a recent incident, the municipality could not operate the detector properly and had to request the RCMP's assistance. The municipality has since shelved the detector because it could not dedicate the resources needed to operate it properly.

2.160 We found a considerable variation in the capabilities of the CBRN equipment purchased and in the training required for its proper operation. These variations would translate into problems with interoperability and surge capacity. We noted differences, for example, in the protection levels and wearing times of various suits and breathing apparatus and in the ability to reliably detect and quantify a broad spectrum of chemical and biological agents.

2.161 **A new strategy has been developed.** PSEPC recently developed a draft national strategy for responding to CBRN incidents. Its objectives include working with provincial and territorial governments, standards organizations, and industry to develop equipment capability standards and guidelines for CBRN agents. To meet this objective, the CRTI and PSEPC will provide support for the building of a testing and evaluation capability at the Counter-Terrorism Technology Centre (CTTC) in Suffield, Alberta, for use by the first responder community, governments, and industry.

2.162 In October 2004, the CBRN Research and Technology Initiative began discussions with the CTTC the on how to conduct testing and evaluation of CBRN equipment and technologies. Any standards would be communicated by PSEPC to the first responder community.

2.163 **Recommendation.** Public Safety and Emergency Preparedness Canada should lead the development of nationally accepted standards for equipment used in responding to chemical, biological, radiological, and nuclear threats. It should also work toward creating unified standards with the United States.

Public Safety and Emergency Preparedness Canada's response. Work is already underway, PSEPC is collaborating with the Chemical, Biological, Radiological and Nuclear Research and Technology Initiative (CRTI) to develop national chemical, biological, radiological, and nuclear (CBRN) equipment standards in Canada. PSEPC and the CRTI are currently developing a framework to guide work in this area, in co-operation with all key stakeholders, including other federal government departments, provinces and territories, the U.S. Department of Homeland Security, industry, standards development organizations, and first responders.

2.164 **Little training completed for first responders.** Budget 2001 allocated $59 million over five years to the training of first responders; six departments, led by OCIPEP, were tasked with developing a CBRN training program for first responders. Of the Budget funding, $11.2 million was allocated to OCIPEP's Emergency Preparedness College and $21 million to Health Canada. We expected to find training programs based on risk assessments, with their delivery structured to ensure that training was timely and efficient.

2.165 We found problems with the CBRN first-responder training program. Federal training has been delayed significantly, and only a small number of first responders have been trained in Canada's major urban centres. The structure of the training is also a concern.

2.166 The Emergency Preparedness College, in partnership with the other federal departments and agencies, was to design and deliver the joint CBRN training program. A four-level program of CBRN courses was designed, with the first two levels (awareness and basic training) focussed on raising awareness of a CBRN incident and surviving exposure to CBRN agents. The next two levels (intermediate and advanced) deal with intervening in and neutralizing the event and are directed to the traditional first responders in fire, police, and emergency medical services. Health care providers such as hospital workers were not included in the College's specialized CBRN-response courses, even though the submission requesting funding for the training program had specifically identified the specialized training needs of health care workers.

2.167 We expected that a training plan and schedule would be linked to threat scenarios and associated casualties, that training of higher-risk cities would be addressed as a priority, and that a timeline would be established for achieving the desired capacity. Although the College did not request a formal threat and risk assessment by region until April 2004, it did use available intelligence to identify higher-risk cities and did give them priority in initial access to training. The problem that arose was in the volume of delivery of the training.

2.168 The lowest levels of training are the introductory and basic courses, which familiarize first responders with threats but do not teach mitigation techniques. The joint training group estimated that about 100,000 first responders required the basic level of training. By October 2003, the College had piloted its basic course in Fredericton, New Brunswick, and in Winnipeg, Manitoba. The College told us it has also trained 176 trainers to give the basic course. To date it has issued 474 training kits to these instructors. Subsequently, the College planned to deliver the kits on CD-Rom. It has now informed us that the course will be delivered through e-learning on the Web. The College also proposes to deliver its introductory course on the Web.

2.169 The higher-level courses are aimed at training first responders in how to work in a CBRN environment. A strategy has not been developed to link the training needs of a first responder team to a target level of response capacity. Nor has the College addressed the need for refresher training and retraining to allow for staff turnover.

2.170 The course design suffered from the fact that a concept of operations for dealing with a CBRN event was not developed. Neither the Emergency Preparedness College nor its CBRN courses currently provide training in the incident command system, even though a number of provinces use such a system to govern their response to a CBRN event as well as PSEPC's new National Emergency Response System (NERS).

2.171 The funding request stated that OCIPEP would co-ordinate the CBRN training initiative in collaboration with the RCMP, Health Canada, National Defence, and others. We were told that Health Canada started developing its own course for medical personnel in July 2003.

2.172 The request for training funds estimated the target population for the intermediate course at 6,000 first responders, with 2,000 targeted for the advanced course. The College, with its federal partners, does not have an adequate plan to deliver timely intermediate and advanced CBRN training to the first responders it identified who need training. By fall 2004, the College had given 134 first responders its intermediate course and 63 its advanced course. The College plans to provide the intermediate course in Ottawa five times a year and hopes to expand its offerings in the future.

2.173 **Recommendation.** Public Safety and Emergency Preparedness Canada, together with the other federal departments and agencies mandated to train for chemical, biological, radiological, or nuclear response, should revisit the objectives for providing training to first responders and the delivery of the training.

Public Safety and Emergency Preparedness Canada's response. A CBRN Strategic Review group has been formed and tasked with addressing key issues related to the development and delivery of CBRN training. The anticipated result is a strategic plan that will address the objectives, delivery, tracking, and accountability measures for this program. The completion date for the plan is scheduled for the end of 2005.

Federal strategy needed for exercising response plans

2.174 We expected that federal response plans would be tested and exercised regularly and revised according to the results.

2.175 The National Security Policy has called for the staging of regular national and international exercises involving civilian and military resources, in order to assess the adequacy of the national system in various emergency scenarios. In our opinion, the regular testing and exercising of response plans is critical to their effectiveness.

2.176 Departments have tested components of their response plans; we found several national exercises conducted since September 11, 2001. While federal departments have participated in exercises that integrated the federal response to a CBRN attack with the provincial and municipal responses, we found no federal strategy or criteria to guide the federal government's participation. We found delays and gaps in the post-event analysis and implementing of recommendations. For example, the final analysis of the TOP OFF II exercise, a U.S.-Canada simulation exercise for senior officials, was circulated 13 months after the exercise.

2.177 Budget 2001 did not allocate resources to exercises or to training of emergency managers. We could not find funds set aside subsequently at the program level to budget for conducting exercises. We were told that any funds used so far in conducting exercises were taken from other programming. For example, the former Department of the Solicitor General used some of its training money to pay for TOP OFF II exercises.

2.178 As part of the new PSEPC structure, a National Exercise Division has been created. It will be responsible for developing guidelines on conducting exercises.

2.179 **Recommendation.** Public Safety and Emergency Preparedness Canada should develop a long-term plan and budget for the conduct of national exercises.

Public Safety and Emergency Preparedness Canada's response. An Exercise Division has been created within PSEPC, and work is already underway to develop a long-term plan and funding strategy for a National Exercise Program. This will be a multi-step process that will require consultation and validation while continuing to deliver complex international initiatives such as Exercise Triple Play. A key part of the National Exercise Program will be the ongoing consolidation of lessons learned and how they inform the establishment of future priorities.

Spending on critical infrastructure protection was not managed well

2.180 Critical infrastructure is the backbone of Canada's economy; it is essential to the health, security, safety, and economic well-being of Canadians and the functioning of government. Critical infrastructure includes energy and utility systems, communications and information technology, financial systems, health care, food, water, transportation, safety services, government, and manufacturing capacity.

2.181 Budget 2001 allocated $190 million to a new program for emergency preparedness and critical infrastructure protection (EP/CIP) co-ordinated by OCIPEP across 12 departments. Half of those funds were allocated to OCIPEP.

2.182 The purpose of the EP/CIP program was to expand the capacity of federal agencies to protect the country's critical infrastructure from attack. We expected to see that the program funds had been allocated on the basis of a risk analysis.

2.183 No threat and risk assessment was carried out before the funds were allocated. A committee of officials was formed that considered proposals from departments and agencies and made a recommendation to the Treasury Board.

2.184 We looked at the three agencies that received the largest share of the money: OCIPEP, the Communications Security Establishment, and the RCMP combined accounted for 80 percent ($152.5 million) of the total budget. We found that

- the targeting of the Communications Security Establishment's allocation was based on reasonable criteria; and
- the RCMP is using its funding to expand existing cybersecurity programs, which is consistent with its approval from the Treasury Board.

2.185 We found that funds allocated to OCIPEP were directed to five thematic initiatives:

- putting the Government of Canada infrastructure house in order;
- enhancing federal, provincial, and international partnerships;
- enhancing national operational capacity;
- developing and implementing targeted programs; and
- strengthening the policy framework.

What we could not find was evidence of a risk analysis to show how the decision was made to give OCIPEP half of the $190 million or how that amount was allocated to the five initiatives.

2.186 As part of the overall program, OCIPEP was to perform a co-ordinating function. It was to work with the Treasury Board Secretariat to recommend the allocation of funds to individual departments. It was also responsible for reporting annually to the Treasury Board Secretariat on how the EP/CIP program was performing.

2.187 At the time of our audit, OCIPEP had compiled one integrated annual report on the critical infrastructure protection program of the public safety and anti-terrorism initiative, as required. We found that since it was the initial report, much of the activity reported involved attendance at meetings or the development of planning frameworks. OCIPEP held three meetings in 2003 to discuss a common evaluation framework. That framework has been developed. We did not find evidence that any additional co-ordinating meetings were held.

2.188 Information for the second report was due from departments in September 2004. However, the Treasury Board Secretariat issued a revised reporting template on 17 December 2004.

2.189 Officials were unable to say how much money OCIPEP had spent on the critical infrastructure protection program and how much funding had lapsed. We interviewed staff from OCIPEP, National Defence, and PSEPC, and no one was sure whether funding had been deferred to subsequent years or had been absorbed into other programs. Program staff told us that in the first two years they thought they had lapsed $10 million of a $35 million budget, but we were unable to verify this.

2.190 We were able to determine that part of the problem in tracking expenditures was the failure of OCIPEP staff to charge their work to the correct financial codes. Management could not correct this problem. In our opinion, basic management controls were missing. We were told that the program may not recover the lapsed funding.

2.191 PSEPC has acknowledged that problems did occur in the past. It has undertaken to develop a co-ordinated strategic plan that establishes goals and priorities for enhancing capacity; to monitor the plan's implementation; to identify and address gaps in emergency preparedness; and, based on established standards and guidelines, to evaluate the effectiveness of expenditures.

2.192 We support PSEPC's proposed solution to the problems we have identified.

2.193 **Recommendation.** Public Safety and Emergency Preparedness Canada should revisit its programs for the emergency preparedness and management of the nation's critical infrastructure protection and base its strategy on a risk assessment.

Public Safety and Emergency Preparedness Canada's response. PSEPC is currently working with its partners (other government departments, provinces, territories, private sector, and U.S.) to develop a national strategy and work plan based on risk management. A consolidated critical infrastructure protection (CIP) risk assessment is challenging because of the different states of preparedness and security of each of the 10 national critical infrastructure sectors. Federal officials (including PSEPC staff) have worked with their U.S. counterparts to develop CIP risk assessment methodologies for the implementation phase of the Canada-U.S. Public Security Technical Program (PSTP). The results of these methodologies will guide work on risk assessments in both countries and be one of the contributions to our respective and complementary national CIP strategies.

Conclusion

2.194 The creation of Public Safety and Emergency Preparedness Canada has begun the process of integrating and advancing emergency preparedness programs. However, due to the relative newness of the current organization, much remains to be done.

2.195 Prior to the reorganization, funding for first responders under the Budget 2001 anti-terrorism initiative suffered from the poor sequencing of programs. The enhancement of response capacity is a function of procedures, equipment, and training, all working together. The federal training programs lagged behind the provinces' equipment purchases, and the strategy to co-ordinate and integrate the responses of different levels of government and regions is still being developed. Under the initiative's funding, each component was developed separately when, instead, they should have been developed to reinforce each other.

2.196 Funds for first responder equipment purchases were disbursed without reference to a threat and risk analysis, and the result was a poor allocation of those funds. We found that equipment purchased for similar needs varies widely in cost and quality. Most critically, the opportunity was not taken to create a national pool of compatible, interoperable equipment.

2.197 Although first responders cited training as their primary need, after significant expenditures the federal program has trained few first responders at the intermediate and advanced levels. Again, threat and risk analyses were not used to establish program goals.

2.198 The new Public Safety and Emergency Preparedness Canada faces many challenges to achieving the goals set for it by government. It will be important to ensure that the Department has the appropriate authorities, structures, and resources necessary to address current and future problems. Senior management is aware of both the challenges and the need to avoid the circumstances that contributed to the problems encountered by OCIPEP over the course of that organization's existence.

2.199 Moreover, the new department needs to review many of the decisions taken by OCIPEP. In our opinion, without strong and clear support from all areas of the federal government, PSEPC will be years away from meeting the goals it has established and that have been established for it. And the gaps in Canada's ability to respond to an emergency will remain.

2.200 We also assessed the extensive improvements made to air transport security. Transport Canada did not meet our audit criteria in its oversight of the air transport security system. It has expanded the security inspection service and improved training; however, we could not conclude whether the number of inspectors and the frequency of inspections are appropriate, as the program has not been based on a documented risk analysis. The security inspection and enforcement regime was not designed to regulate federal agencies such as CATSA, the Canadian Air Transport Security Authority.

2.201 CATSA was created to manage and deliver many components of air travel security that were dramatically expanded by the 2001 Budget initiative. About $1 billion has been spent to acquire and install equipment to screen for and detect explosives. We found that the implementation of the Explosives Detection Systems program has proceeded well to date.

2.202 We found that the marine security programs have made good progress and met most of our criteria. We noted that threat and risk analysis was used as a basis for allocating funds to priority areas. However, additional expenditures will likely be required to fill gaps in capabilities. The implementation of the International Ship and Port Facility Security Code is generally proceeding well, though here, too, success may depend on the availability of resources in the future.

About the Audit

Objectives

The objectives of the audit were to determine whether

- Transport Canada's oversight of the air transport security system is adequate;
- Transport Canada and the Canadian Air Transport Security Authority (CATSA) have adequately managed those elements of Explosives Detection Systems acquisition and implementation for which they are responsible;
- marine surveillance capital projects have been adequately managed and the International Ship and Port Facility Security Code implemented according to the government's plan; and
- emergency preparedness programs of the federal government are adequately managed.

Scope and approach

This audit was the second of two audits of the government's National Security Enhancement Initiative presented in Budget 2001. The report on the first audit was tabled in March 2004. This report on the second phase addresses the integrity of the air transport security system as a whole; capital expenditures on Explosives Detection Systems and marine security surveillance systems; the implementation of the International Ship and Port Facility Security Code; and emergency preparedness programs.

The audit focussed on the departments and agencies involved in implementing or monitoring these programs. They included

- Canadian Air Transport Security Authority
- Fisheries and Oceans Canada (specifically, the Canadian Coast Guard)
- Health Canada
- National Defence
- Office of Critical Infrastructure Protection and Emergency Preparedness
- Public Health Agency of Canada
- Public Safety and Emergency Preparedness Canada
- RCMP
- Solicitor General Canada
- Treasury Board Secretariat
- Transport Canada

Our audit was limited to federal programs and did not include emergency preparedness plans and capabilities of other levels of government.

Criteria

Our audit was based on the following criteria:

- The air transport security system should be based on an adequate risk assessment.
- Transport Canada should take adequate measures to ensure compliance with its security regulations, including
  - adequate training and numbers of inspectors;
  - adequate frequency of inspections;
  - quality control of inspections;
  - analysis of breaches;
  - corrective action of recurring and systemic problems.

- Equipment and contracting options should have been appropriately assessed.
- There should be time and cost controls and reporting commensurate with an undertaking whose capital costs exceed $100 million.
- Equipment acquired should meet Transport Canada's standards and objectives as stated in acquisition plans and contract specifications.
- Operators should meet Transport Canada's standards for the detection of simulated threats and threat image projection.
- Transport Canada should mitigate the risks that implementing EDS poses for the smooth functioning of the air transport system as a whole.
- Projects should comply with best practices and standards of project management.
- Departments should ensure that best practices for contracting are observed and that contracting regulations are followed.
- There should be a clear chain of command for the federal and national response to incidents.
- Federal response plans should be based on threat/risk assessments.
- Federal response capabilities should be matched to approved threat and casualty scenarios.
- There should be federal equipment guidelines for first responders, specifying minimum performance and interoperability requirements as well as test protocols.
- First responder training should
  - be linked to current threat/risk assessments;
  - be timely;
  - be targeted and prioritized;
  - include cyclical retraining.
- Federal response plans should
  - be tested and evaluated regularly;
  - be integrated across levels of government;
  - be revised according to post-event and post-exercise analysis.

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Report of the Auditor General of Canada to the House of Commons—April 2005

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2005

Report of the

Auditor General of Canada

to the House of Commons

APRIL

Chapter 3
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Office of the Auditor General of Canada

The April 2005 Report of the Auditor General of Canada comprises six chapters, and a Message From the Auditor General of Canada and Main Points. The main table of contents is found at the end of this publication.

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Chapter

3

Passport Office

Passport Services

All of the audit work in this chapter was conducted in accordance with the standards for assurance engagements set by the Canadian Institute of Chartered Accountants. While the Office adopts these standards as the minimum requirement for our audits, we also draw upon the standards and practices of other disciplines.

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Passport Office
Passport Services

Main Points

3.1 The Passport Office is struggling to meet increasing security expectations and demands for service. Significant improvements are necessary in the processes for determining passport entitlement. The Office is currently unable to fulfill all of its responsibilities under the Canadian Passport Order. Its watch list is deficient and often not updated in a timely fashion because the Office has not found ways to automatically obtain data from other government sources. Management does not sufficiently monitor some key security functions to ensure that they are properly carried out.

3.2 The Passport Office has established and achieved its published service standards for clients. However, costs are increasing and are not tied to service standards. Although it has reported on the performance of certain major service standards, there is limited performance information about security measures. At the time of the audit, the Passport Office did not have the management systems and practices that would prepare it to meet future challenges effectively.

3.3 The Passport Office and Foreign Affairs Canada did not meet the requirements for ongoing consultation on service standards and how they relate to passport and consular fees. The Passport Office also lacks reliable cost information related to published service standards.

Background and other observations

3.4 The Passport Office is a Special Operating Agency reporting to Foreign Affairs Canada. It finances its operations from the user fees it collects. The Office issued about 2.5 million passports in 2003–04. It collected revenues of $158 million that it used to finance its operations and had a net income of $9 million. It also collected $54 million in consular fees for deposit to the Consolidated Revenue Fund. The Passport Office is responsible for enforcing the Canadian Passport Order in issuing various travel documents. Issuing the 24-page blue passport, which in 2005 rose in cost from $85 to $87, makes up about 98 percent of Passport Office business.

The Passport Office has responded. In its response to each recommendation throughout the chapter, the Passport Office indicates the action it has taken, is taking, or plans to take to address the recommendation.

Introduction

3.5 The Canadian economy depends on trade. But globalization—of production, commerce, crime, terrorism, and travel—is evolving rapidly and creating new opportunities, risks, and requirements for travellers. Still, Canadians need and expect an official travel document that is secure and universally respected to ease their way across borders and around the globe. The Canadian Passport Order defines a passport as an official Canadian document that shows the identity and nationality of a person for the purpose of facilitating travel by that person outside Canada.

3.6 Rising demand and the security challenges due to the events of September 11, 2001, also contribute to an environment where the pace, scope, and direction of change is increasingly unpredictable. The Passport Office must balance three essential factors—cost, service, and security—while investing in the technology and human resources required to meet the needs of coming years.

3.7 The Passport Office is responsible for issuing, revoking, and withholding or recovering Canadian passports issued to Canadian citizens and other travel documents to Canadian permanent residents. Issuing the 24-page blue passport makes up over 98 percent of its business.

Special operating agency—An agency within a government department that has greater management flexibility in return for certain levels of performance and results.

3.8 The Passport Office is a special operating agency reporting to Foreign Affairs Canada and, as such, is expected to

- encourage innovation in administration and service delivery while respecting control requirements and managing risk,
- provide greater freedom from departmental and government-wide administrative rules in return for clear performance levels, and
- improve cost-effectiveness and service delivery by applying private sector techniques while tightly managing performance targets.

Revolving fund—A fund provided for a particular purpose that is periodically replenished by transfers from other funds or, as in this case, by user fees.

3.9 The Passport Office operates on a revolving fund basis and is self-financing through user fees charged for various travel documents. Unlike government departments, it has no annual parliamentary appropriation for operations and must generate sufficient revenues to meet its expenses. It has a significant degree of autonomy in administering its operations.

The Passport Office faces new demands

3.10 The Passport Office experienced steady growth in the mid-1990s. The tragic events of September 11, 2001, brought security matters to the fore. The Passport Office now faces some serious challenges in a period of increased demand for passports: rising costs of production; pressures to adopt new technologies that heighten security features of the travel document; and identity authentication issues.

3.11 In May 2004, Foreign Affairs appointed a new chief executive officer. In the fall of 2004, the Passport Office was considering a new strategic direction that would focus on two types of clients: those who are applying for their first passport, and those who have previously sought and obtained a passport.

3.12 Since September 11, 2001, Canadians are more likely to carry their passports when traveling to the U.S. That, along with the implementation of the "one person, one passport policy," where children can no longer be included on a parent's passport, have given rise to higher demand for passports. At the same time, there has been a worldwide move to greater tightening of security.

- In 2002–03, 2.2 million passports were issued, a 13 percent increase over the previous year.
- In 2003–04 over 2.5 million passports were issued, a 15 percent increase over the previous year.
- The Passport Office estimates that 2.8 million passports will be issued in 2004-05, up from 1.0 million in as recently as 1999–2000.

3.13 **Points of service.** In 2004, more points of service were opened in response to increased volumes. Most Canadians obtain their passports by applying at one of the 30 domestic offices that offer front-counter service to applicants. The offices are administered through four regional directorates. In the last few years, the Passport Office has entered into arrangements with Canada Post Corporation to help passport applicants: postal staff in 49 selected locations review applications and forward complete ones to the Office. Canada Post charges an additional $15 fee for this optional service.

3.14 The public can also mail completed applications to Passport headquarters directly. The Passport Office also accepts applications through members of Parliament who forwarded about 65,700 applications to the Office in 2003–04. In addition to its network of offices, the Office is using other receiving agents such as the staff of Human Resources and Skills Development Canada. Foreign Affairs Canada consular staff provide passport services abroad at over 100 missions.

Focus of the audit

3.15 The objectives of this performance audit were to determine whether the Passport Office has designed, implemented, and monitored effective controls over the issuance of passports; whether it has established and achieved reasonable levels of service; and whether it has achieved both objectives at a reasonable cost.

3.16 We examined four areas in this audit:

- security and identity verification,
- service to the public,
- management of improvement initiatives, and
- fee increases.

3.17 We undertook fieldwork at headquarters and in 15 offices. We examined relevant business, information technology, and management processes and practices, and we assessed compliance with applicable rules and authorities.

3.18 More information on the audit is found in **About the Audit** at the end of the chapter.

Observations and Recommendations

Security and identity verification

3.19 **The production process and examiner's role.** The Canadian Passport Order, approved by the Governor-in-Council, specifies who is entitled to a Canadian Passport and the conditions that must be met. The Passport Office may refuse to grant a passport to Canadian citizens with certain Criminal Code violations or charges pending. Passport Office staff are responsible for applying the rules and procedures of entitlement, which are listed in the Canadian Passport Order (Exhibit 3.1). Applicants must be Canadian citizens and applicants for passports for children must have guardianship rights.

Exhibit 3.1 Excerpt from the Canadian Passport Order

Under section 9 of the Canadian Passport Order, the Passport Office may refuse to issue a passport to an applicant who:

a) fails to provide the Passport Office with a duly completed application for a passport or with the information and material that is required or requested …

b) stands charged in Canada with the commission of an indictable offence;

c) stands charged outside Canada with the commission of any offence that would, if committed in Canada, constitute an indictable offence;

d) is serving a term of imprisonment or is forbidden to leave Canada by

  i) the terms and conditions of any parole or mandatory supervision imposed under or by virtue of Part II of the Corrections and Conditional Release Act,

  ii) the conditions of a probation order made under the Criminal Code, or

  iii) the conditions of the grant of temporary absence without escort from a prison or penitentiary;

e) has been convicted of an offence under section 57 of the Criminal Code;

f) is indebted to the Crown for expenses related to repatriation to Canada or for other consular financial assistance provided abroad at his request by the Government of Canada; or

g) has been issued a passport that has not expired and has not been revoked.

Under section 10 of the Canadian Passport Order, the Passport Office may revoke a passport for any of the abovementioned grounds and to an applicant who:

a) being outside Canada, stands charged in a foreign country or state with the commission of any offence that would constitute an indictable offence if committed in Canada;

b) uses the passport to assist him in committing an indictable offence in Canada or any offence in a foreign country or state that would constitute an indictable offence if committed in Canada;

c) permits another person to use the passport;

d) has obtained the passport by means of false or misleading information; or

e) has ceased to be a Canadian citizen.

Finally, the Minister of Foreign Affairs may refuse or revoke a passport if the Minister is of the opinion that such action is necessary for the national security of Canada or another country.

3.20 The granting of a passport goes through three phases: application data entry and authentication of the identity and citizenship of the applicant; certain security checks that could prevent the granting of the passport; and printing and mailing (Exhibit 3.2). Examiners take, on average, 8 to 12 minutes to process a routine application.

3.21 The Canadian Passport is valid for five years. While many other western nations use a ten-year period, some of those countries are considering a five-year validity period. A shorter validity period allows the Passport Office to more rapidly introduce technological enhancements that improve the security of the passport document, thus reducing the risk of counterfeit or fraudulent passports in circulation. However, a shorter validity period has significant cost and service implications for its operations.

3.22 The passport application package includes information that is intended to help examiners assess that applicants are not only Canadian citizens, but that they are also the individuals they purport to be. In addition to proof of citizenship by either birth or naturalization, applicants must include other proofs of identity, guarantor information (including a guarantor-signed photograph), and two references. The original proof of citizenship, birth certificate, and proof of identity, in most cases, are compared to the application information and returned immediately to the applicant at the counter (or with the passport, for mailed applications).

Examiners are well trained

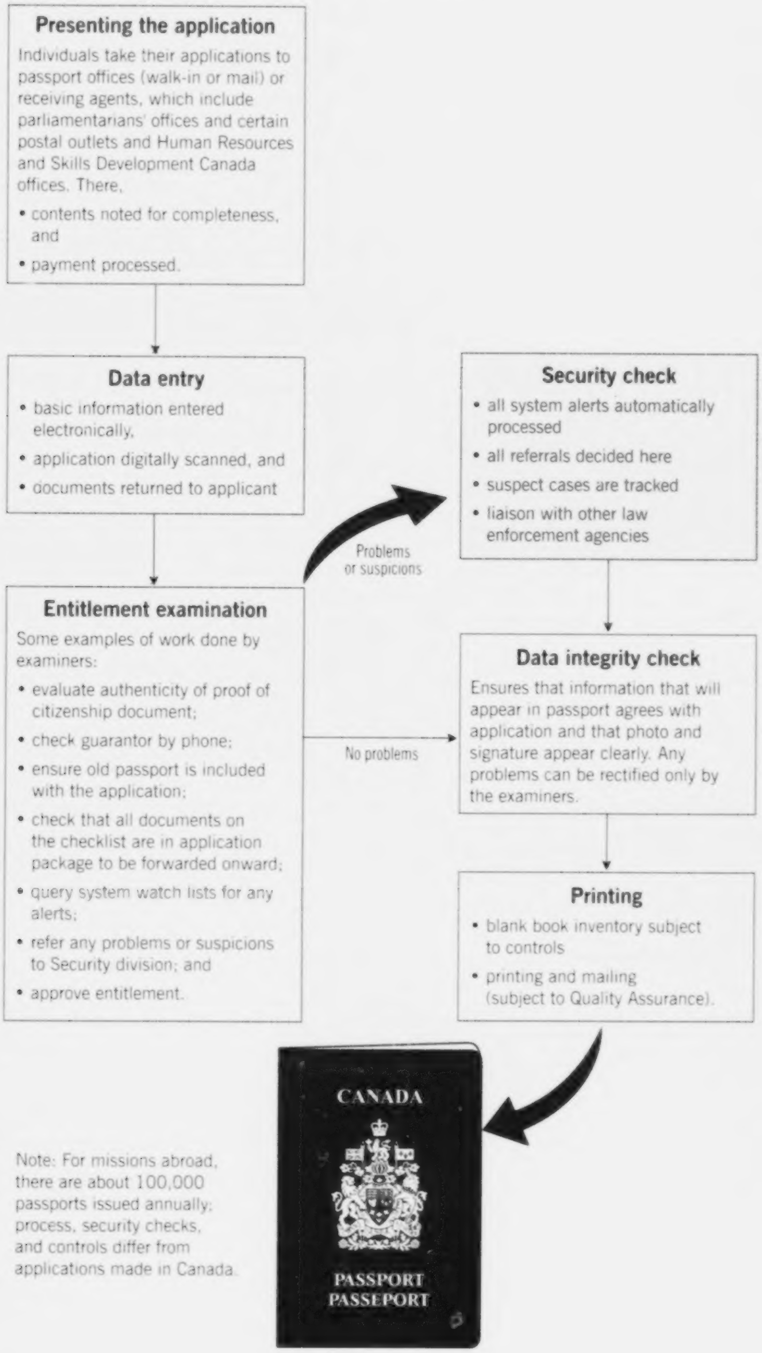
3.23 Examiners are the key officers in the passport entitlement process. Their role is to examine each application and assess whether applicants are who they say they are and, if so, whether they are eligible for a passport under the Canadian Passport Order. A national standard of performance for quality and efficiency governing this process only exists for examiners in training.

3.24 We found that the initial training provided to examiners in Canada is comprehensive. Training for domestic examiners consists of 4 weeks of in-class instruction followed by a 12-week period of qualification working with a mentor. (Training of consular officers abroad is discussed in paragraph 3.57).

3.25 We sent an interview questionnaire to 50 examiners and interviewed some additional examiners in the field. Most respondents expressed overall satisfaction with the initial training. The examiners felt that more frequent refresher training is required to keep up with changes in policies and procedures. Examiners also appreciated training on how to detect fraudulent documents when this was made available.

3.26 The extensive training program requires considerable investment. New staff must complete training before they can handle many of their duties. Management plans to change the structure of the initial training to increase the focus on security matters.

Exhibit 3.2 Process and controls for issuing a passport in 2004



Presenting the application

Individuals take their applications to passport offices (walk-in or mail) or receiving agents, which include parliamentarians' offices and certain postal outlets and Human Resources and Skills Development Canada offices. There,

- contents noted for completeness, and
- payment processed.

Data entry

- basic information entered electronically,
- application digitally scanned, and
- documents returned to applicant

Entitlement examination

Some examples of work done by examiners:

- evaluate authenticity of proof of citizenship document;
- check guarantor by phone;
- ensure old passport is included with the application;
- check that all documents on the checklist are in application package to be forwarded onward;
- query system watch lists for any alerts;
- refer any problems or suspicions to Security division; and
- approve entitlement.

Security check

- all system alerts automatically processed
- all referrals decided here
- suspect cases are tracked
- liaison with other law enforcement agencies

Data integrity check

Ensures that information that will appear in passport agrees with application and that photo and signature appear clearly. Any problems can be rectified only by the examiners.

Printing

- blank book inventory subject to controls
- printing and mailing (subject to Quality Assurance).

Note: For missions abroad, there are about 100,000 passports issued annually; process, security checks, and controls differ from applications made in Canada.

Security clearance levels need to be reviewed and updated as required

3.27 The governing authority for security clearance is the Treasury Board of Canada's Government Security Policy and the Personnel Security Standard. Examiners must clear the appropriate security level to be hired. The Passport Office determines the security level required for each examiner according to the type of assets or information that the examiner will need to access. In general, most examiners are cleared for "enhanced reliability." Each level higher requires a more thorough background check of the employee.

3.28 We reviewed employee personnel records to determine whether employees had the appropriate levels of security clearance according to the Government Security Policy. We also visited local offices and observed employee access to critical materials and equipment such as blank passports and printers. We found that 565 indeterminate and term examiners in the human resources system were cleared for enhanced reliability and 179 had the next higher clearance, "secret." Of these 565 examiners, 45 had "full job concept" in their job description, which means they had access to critical material and equipment. We also observed in our visits that certain examiners without a secret clearance had access to critical assets in some offices. We are concerned that contrary to government policy, individuals with inadequate security clearance potentially had access to some critical assets. The Passport Office has informed us that this identified vulnerability has been addressed.

Identity authentication and entitlement decisions

Quality assurance of the examiner function is lacking

3.29 The quality of security features on identity documents accepted by the Passport Office to determine entitlement varies greatly. Some older birth and citizenship certificates have few, if any, security features; the latest citizenship card, which includes several embedded security features, is more difficult to alter.

3.30 The Passport Office lacks a formal quality assurance system for the examiner entitlement functions. Therefore, there is no assurance that examiners have followed the required procedures to determine that an applicant is eligible for a passport. In our view, the Passport Office needs a formal quality assurance system that checks whether an examiner is making the proper decisions about the identity documents presented by an applicant. That system should also provide an independent check over other entitlement functions such as verifying information provided by guarantors. A proper quality assurance system would ensure that any examiner making a systematic error in judgment would be rapidly identified and corrective action or training undertaken.

Examiners do not have all the proper tools readily available

3.31 During our visits to passport offices, we observed the type and availability of some key tools for examiners. Examiners at all offices had reference manuals and these were reasonably accessible. However, we found the following:

- A black light is needed to see the security features on the latest Canadian citizenship card. We observed one or two black lights available in some of the offices we visited, but they were not in the examiner area. This means that examiners have to leave their stations to verify the authenticity of modern citizenship cards. Examiners informed us that service requirements kept them from using this tool routinely, because doing so would cause delays. As a result, they rarely use them.
- Magnifying glasses for document examination were generally not part of examiners' standard equipment. According to their training on document fraud, this tool is useful in detecting some forms of document fraud.

The Passport Office informed us that it will purchase black lights and magnifying glasses for all examiners to keep at their workstations. The Office also informed us that managers have been advised that they will be responsible for providing refresher training to examiners once the equipment has been delivered, and that training guides will be completed for distribution by 31 March 2005.

Checks on guarantor information are not performed as required

3.32 Guarantors are either members of certain professional associations or individuals with certain accreditations who confirm the identity of the applicant by signing a declaration and one photograph of the applicant. Each guarantor must have known the individual for at least two years. Applicants who do not know an eligible guarantor must have their applications notarized. The signature of a guarantor is one of the main controls to ensure the authenticity of an applicant's identity.

3.33 The examiner's training manual includes a comprehensive list of criteria to validate the guarantor's credentials or the information provided; this procedure is called a guarantor check. The list provides instructions on what should be documented about the verification performed. Generally, to perform a guarantor check, the examiner verifies the guarantor's status and contacts the guarantor by phone to confirm the information provided.

3.34 Passport Office procedures require that examiners conduct guarantor checks on a significant percentage of applications. However, there is no national reporting on this activity, and the Passport Office could not demonstrate that this objective was achieved. We examined a sample of 50 applications where a guarantor check was mandatory, for compliance with the requirement. In 37 cases, we found no evidence of a guarantor check. Part of the reason for this non-compliance appeared to be poor communication of corporate requirements on one of the categories. We then examined a second sample of 50 applications for another category where the requirements were clearly communicated. We found no evidence of a guarantor check in 2 of those cases. For both categories, the results of the checks performed were poorly documented. As a result of our audit, the Passport Office has informed us that it has sent policy clarification to its regional offices and will ensure that the policy is adhered to.

Confirming vital statistics is difficult for examiners

3.35 At their discretion, examiners confirm the data on a birth or citizenship certificate by asking regional co-ordinators to contact Citizenship and Immigration Canada or the relevant provincial registry and seek confirmation that the presented identity document was issued with identical data. This is time consuming and non-routine. The Passport Office conducted a pilot project in one office where the data were automatically checked against the provincial registry through an electronic link. The pilot proved successful, and participants told us that this type of electronic link is ideal to ensure the validity of birth or citizenship certificate information.

3.36 Currently, there are no direct electronic links to provincial bureaus of vital statistics. Such links would provide immediate confirmation of data and allow examiners to check for reported deaths. No similar link exists between the Passport Office and Citizenship and Immigration Canada. Such a link would even permit photo verification of some naturalized citizens. Together with other federal and provincial/territorial partners, the Passport Office is looking into the development of a national routing system to create such electronic links.

Foreign Affairs Canada and the Passport Office have provided leadership on addressing identity documentation issues

3.37 The Passport Office and Foreign Affairs Canada have provided leadership on addressing identity documentation issues in Canada. As a result of such issues and growing security concerns after the events of September 11, 2001, the federal government spearheaded the formation of the Council of Identity. Its objectives were to develop a policy framework on identity in Canada, facilitate implementation of the policy, and monitor its effectiveness. The Council is chaired by the assistant deputy minister of Foreign Affairs and is composed of representatives from various federal agencies and provincial and territorial vital statistics personnel. The Passport Office is a leading participant in the Council as part of its efforts to improve its ability to rely on foundation documents (for example, birth, death, marriage, and citizenship certificates) presented by applicants, regardless of the level of government in Canada that produces them.

3.38 Since April 2002, the Council has held six meetings. By the spring of 2004 it had met its main objective: the completed development of a framework for a comprehensive and consistent approach to establishing and verifying identity across federal and provincial/territorial jurisdictions. It submitted the framework to the government for approval. The framework provides the policy parameters for authentication, secure registration, and verification of identities in Canada, based on the concept of foundation documents. At the time of our audit, Council members were awaiting the framework's approval. Such a framework is considered necessary for the creation of a national routing system, which would allow electronic authentication of foundation documents.

Challenges to the Security, Policy and Entitlement Division

3.39 The Security, Policy and Entitlement Division of the Passport Office has 62 staff and is responsible for all security matters related to personnel and the production and physical security elements of passports. Within the division, the Security Operations unit is responsible for the functions that assist in making and supporting entitlement and passport issuance decisions.

3.40 In order to assess the adequacy of the Security Operations' activities, we asked the Passport Office to provide us with management reports. We also sought to identify any systematic quality assurance controls over security activities. The Passport Office advised us that they do not yet have aggregated management reports on all the activities of the unit. They have problems with extracting management information from the main information systems. Management advised us that supervisors could assess some activities. However, the tracked data is not integrated and analyzed in a way that would assist them in monitoring the performance of the division, in making resource allocation decisions, or in making decisions on program priorities.

3.41 **Access to the passport issuing system needs to be restricted.** We found very poor control over the granting of access rights to users. Data administrators, system administrators, case management officers, entitlement review analysts, and operational and non-operational office managers all have user access profiles that allow them to issue a passport. We also found duplicate, system, or generic user profiles. Of 71 unsuccessful examiner candidates sampled, 19 still had active user access rights that would allow them to approve an application.

3.42 In cases where there is no automatic alert in the system, examiners can authorize the printing of a passport without further checks on their decision. We expected that access to the passport production and information system would be adequately safeguarded by assigning the appropriate profile to each user name. We expected that only qualified examiners currently dedicated to examiner functions would be able to access the system to produce passports. We found that there were a significant number of users who are not examiners and who have access to the system. They can approve entitlement and, in some cases, effectively trigger the issuance of a passport. This puts the issuance process at risk. The Passport Office informed us that this is, in part, a result of new workflows developed for high volume offices where data entry staff—who are not examiners—have access to printing due to the system design.

3.43 **The Passport Office cannot effectively enforce certain provisions of sections 9 and 10 of the Canadian Passport Order.** Prior to approving the issuance of a passport, examiners automatically check all applicants against the watch list from the Passport Office's information system to detect potential reasons for refusing a passport. This automatic check is the main security control in the process; there is no information related to criminal charges or probation orders required on the application form. If applicants do not have alerts against their names on the automated watch list, examiners have no way of knowing whether decisions need to be made under section 9.

Similarly, security personnel cannot know if they should consider revoking a person's passport under section 10. In addition, we could not find any documented criteria for making discretionary decisions to refuse or revoke a passport.

3.44 With its current information, the Passport Office cannot properly enforce certain provisions of sections 9 and 10 of the Canadian Passport Order, which address individuals with criminal charges or convictions (Exhibit 3.1). The Passport Office has three components to the watch list in its system: lookouts for persons, alerts for documentary evidence of citizenship, and alerts for guarantors. As of August 2004, the persons watch list had about 73,000 entries while the documentary evidence of citizenship and guarantor alerts had about 2,800 and 290 entries respectively. The largest category within the watch list is for parents (22,800) who are in arrears for child support payments.

3.45 Security officers advised us that the list is developed from information provided by a variety of sources, including migration integrity officers from missions abroad, law enforcement officers, courts, airline staff, and examiners. The majority of the information is provided voluntarily, on an informal basis. There are no automated data-sharing processes.

3.46 There are several databases maintained by government departments and agencies that the Passport Office could try and access to make its watch list more complete. For example, the Canadian Police Information Centre (CPIC) lists persons wanted or on probation. We are not suggesting that the Passport Office must refuse or revoke passports for all of these people; many are likely not of interest to the Office in terms of enforcing the Canadian Passport Order. However, the Passport Office's watch list includes fewer than 2,000 of those individuals who are wanted or are on probation. The current watch list appears to be of limited value in enforcing sections 9 and 10 of the Passport Order. The Office has not found a way to gain automated access to these important data. The Passport Office staff may manually access the CPIC database through a terminal at its headquarters to examine any individual application. However, it does not electronically link the CPIC data to its own watch list. Since its system lacks an electronic link to this key data, the automatic checks would not flag pertinent applications for review. We have been informed that other agencies have established such links for their own specific needs. We recognize that the Passport Office needs the co-operation of other government departments to obtain much of the data it needs. Nevertheless, without reasonable automated links to other government data systems that deal with criminal offences, its watch list will likely remain deficient.

3.47 We also found several weaknesses in the management of the watch list. The updating of the list was neither complete nor timely, in part due to problems co-ordinating with other government departments and agencies. For example, in 45 investigations we examined that were performed by the Security Operations unit, an average of 18 days elapsed between notification and creation of alerts.

3.48 Under section 10 of the Passport Order, the Passport Office may revoke the passport of anyone charged with an indictable offence, sentenced to jail, or released on parole. The Passport Office has revoked less than 25 passports, on average, each year for the last three years.

3.49 For examiners and security staff, the automated watch list is a key control. When the watch list is deficient, as is currently the case, they cannot properly fulfil their responsibilities and enforce important sections of the Canadian Passport Order that deal with persons who are charged with crimes, serving sentences, or are on parole.

3.50 **Weaknesses in the investigations of sensitive cases.** The Security Operations unit collects information and conducts investigations on any suspicious activity. Files are created when information such as the following is received:

- a Canadian has been identified as a smuggler or has committed passport fraud and there is sufficient evidence to pursue an investigation,
- an individual obtained a passport fraudulently,
- an applicant forged guarantor information and charges will be pursued, or
- an applicant forged the other parent's signature and charges will be pursued.

3.51 In the absence of an effective case management system, the unit has only some manual records of its investigative activity. Such records do not allow the Passport Office to assess the outstanding workload, the rate of effective resolutions of investigations, or resource requirements.

3.52 We examined a sample of 50 sensitive case files and observed several problems. For example,

- in our view, the Passport Office did not fully investigate 12 cases. According to the Office, 3 of the 12 investigations were incomplete due to resource limitations, and 6 resulted in the Office granting or extending a limited validity period.
- in our view, the Office should have referred at least 6 cases to the Royal Canadian Mounted Police (RCMP).
- for 10 cases that the Office did refer to the RCMP, there was no documentation on any follow-up activity to determine the status or the outcome of the RCMP's investigations.

3.53 Follow-up with the RCMP to determine the outcome of their investigations could provide useful lessons learned for the Passport Office in disposing of other outstanding cases. It would be in a better position to refer only those cases worthy of further investigation by the RCMP. The Passport Office and the RCMP could then better utilize their respective resources.

3.54 **The Passport Office has improved its recording and sharing of information on lost and stolen passports.** We followed up on the progress made as a result of observations on lost and stolen passports in our

March 2004 Report, National Security in Canada—The 2001 Anti-Terrorism Initiative. The Passport Office has made significant progress.

3.55 In February 2004, the Passport Office assumed responsibility for entering its data into the Canadian Police Information Centre database. For those files we examined, it still took an average of 35 days after a passport was reported lost or stolen (down from 70 days noted in our March 2004 Report) to give that information to CPIC. The Passport Office has recently automated several procedures that should eliminate the delays. Furthermore, there is currently no backlog of files in the Passport Office for entry to the CPIC database, compared to over 4,000 observed in our March 2004 Report.

3.56 To be effective, information on lost and stolen passports needs to be recorded and shared in a timely fashion. As a result of our March 2004 audit, the Passport Office is now sharing information with the Canada Border Services Agency. If a border services officer scans or queries a passport that the Office has recorded as lost or stolen, it will trigger an alert. The Passport Office has also begun to share the information with the International Criminal Police Organization (INTERPOL).

Control over issuance of passports by missions abroad presents several risks

3.57 The Passport Office relies on Foreign Affairs Canada consular staff to issue over 100,000 passports each year to applicants abroad. Consular staff perform examination, approval, and printing procedures. There are several key differences between mission and domestic passport services that result in increased risk:

- Consular staff do not consistently receive the same formal training and qualification as domestic examiners. Their passport training typically amounts to two days, compared with the four weeks of classroom training and twelve-week mentoring period provided domestically.
- In 2004, the upload of mission information into the Passport Office's system began on a daily basis. Previously, this was done every four to six weeks.
- Missions still print passports using the older passport booklet, which does not have the higher security features offered by the new booklet and new printing technology. The Passport Office is now planning to repatriate the printing of booklets, while providing only emergency travel documents at missions.

3.58 **Recommendation.** Foreign Affairs Canada and the Passport Office should do the following:

- Conduct a detailed security risk assessment of the passport examination and security functions, identify important gaps in the fulfilment of its mandate under the Passport Order, and take appropriate action. Such an assessment should address Passport Office examiners' security clearances, the conduct and recording of guarantor checks, system profiles, the completeness and accuracy of its watch list and methods used to share data with other federal and provincial agencies, its lessons learned process, and its management of investigations.

- Introduce quality assurance and control measures over its key entitlement operations to ensure that the Office conducts proper internal checks on initial decisions and properly controls access to critical assets.
- Work toward establishing electronic links with Citizenship and Immigration Canada and the provinces that could automatically validate the identity data on an application.
- Provide examiners with the proper tools to discharge their responsibilities.
- Provide more thorough examiner training for consular officers.
- Work with Citizenship and Immigration Canada, the RCMP, and the Canadian Border Services Agency to develop memoranda of understanding for the sharing of information vital to the enforcement of the Canadian Passport Order.

Passport Office's response. As a result of increased international and domestic attention to security, there has been a significant shift in the policy framework in which the Passport Office operates. In the past, this framework primarily emphasized the delivery of service. Now it is rooted in domestic and global security, guided by the Canada National Security Policy of April 2004.

The Passport Office has put in place a series of key initiatives to address this recommendation. Specifically, working with Foreign Affairs Canada, it has launched a risk assessment to address strategic risk, including in the area of security. Once these results are received, a more focussed security risk assessment will be conducted. This will be accomplished in fiscal year 2005–06.

In fiscal year 2004–05, the Passport Office initiated a review of its Security Bureau and its functions to further enhance passport integrity, and it has allocated additional resources in support of this critical function. In fiscal year 2004–05 the budget of the Security Bureau was augmented by 25 percent over fiscal year 2003–04. The Bureau has added the positions of manager of intelligence and manager of compliance.

The Passport Office is redefining the mandate of the Security Bureau to identify core functions and processes. From this review, a three-year strategic plan and restructuring recommendation will be developed to narrow the focus of several divisions while introducing experienced senior managers and professionalizing staff development and training. The plan will be in place in fiscal year 2005–06.

The creation of new Regional Security units reporting to both regional and Passport Office headquarters will further ensure that the security continuum, from identity verification to passport printing, is strengthened. In fiscal year 2005–06, eight new regional security officers will be hired for this purpose. The units will be located in regional headquarters across the country and will be used to support the compliance program, conduct on-site interviews of applicants with complex cases, and investigate fraudulent applicants or applications.

As of 4 February 2005, the Passport Office has purged all inactive and duplicate access to its system. A profile compliance monitoring system of each non-examiner's access is currently under development.

An expanded trial to establish electronic links for verification of identity data, involving several federal government departments and two provinces, is scheduled for launch in April 2005. This system will be further developed as funds become available.

The Passport Office is researching case management software with the intent of having a security and intelligence case management system in place by September 2005. This important tool, along with facial recognition technology, will enable management to strengthen the process of verifying identity before the issuance of a Canadian passport.

Nevertheless, the fundamental challenge faced by the Passport Office will always lie in correctly confirming an individual's identity. Canada does not have an explicit identity program. None of the documents commonly accepted in Canada as proof of identity was originally intended for that purpose. A second challenge is the ability to share information among federal departments and agencies, because of issues of technical interoperability and legislative frameworks. The Passport Office and Correctional Service Canada are now close to concluding a Memorandum of Understanding for the sharing of critical information.

Service to the public

3.59 The Treasury Board's *Results for Canadians: A Management Framework for the Government of Canada* sets out the key principles of public services delivery. The framework states:

> As citizens, Canadians have a right to fair, equitable and reasonable treatment from federal government institutions. As clients, Canadians have a right to accessible service that meets their priorities for improvement. . . .
>
> Citizens want the government to respond to their needs and provide choice: one-stop, integrated access via Internet, telephone or mail, or in person.

3.60 The Treasury Board's policy on external charging required the Passport Office, in delivering its service, to conduct open, transparent, and informative consultations with stakeholders. It must consult its stakeholders on costing, service delivery methods, and on establishing standards.

Key service standards exists but gaps remain

3.61 The Passport Office manages its operations using some meaningful key standards, including public wait times for walk-in service, phone calls, and turnaround times for receiving a passport. These standards serve as good indicators of performance and as useful tools for service improvement by the agency.

3.62 However, the service standards were lowered in December 2001 without the required consultation with stakeholders. For instance, turnaround target times increased in 2001 from 5 to 10 days for over-the-counter applications and from 10 to 20 days for mailed applications.

3.63 Standards for such examiner functions as identity verification and citizenship determination do not exist. There is also no national standard on examiner output and error rate—the number of applications examiners are expected to process each day and the number of errors that could be expected.

3.64 The Passport Office has reported on its performance in some relevant and meaningful ways:

- using some key performance standards (such as wait times and turnaround times);
- discussing and explaining how expected performance was being met or was not; and
- including negative information in their reporting.

3.65 When the Passport Office was established as a Special Operating Agency in 1990, the Treasury Board approved a document outlining its performance accountability. The business plans of the Passport Office further elaborate on three major areas of performance: service to the public, security, and stability of its operations. It has included extensive information in its annual reports about its service to the public. However, there is limited performance information to Parliament about security and the stability of its operations.

3.66 The Passport Office follows the good practice of publishing some client satisfaction survey results. Improvements could be made to the presentation of survey information; for example, it could comment on any data limitations so that readers can interpret the survey results more accurately. Nevertheless, performance information found in the Office's Annual Report does not adequately reflect the three focuses of its business plan: reduce passport fraud (security); provide reliable and convenient service; and put in place the conditions necessary for improvement (stability). Reporting on security and stability activities is missing or insufficient. We also found that it does not report consistently on phone service standards and performance.

Costs have risen significantly

3.67 The number of passports processed by each employee has been dropping consistently over the past five years. A decrease in productivity can have a direct impact on service to clients. Lower outputs by employees can mean longer waiting times for the applicants.

3.68 The Passport Office tracks the productivity of its offices, which varies significantly. Generally speaking, productivity in medium offices is similar, but productivity varies greatly among small and large offices. The Passport Office has not identified the reasons for those variations. Doing so would permit it to adopt corrective measures to control costs. At the time of our audit, the

Passport Office was developing a cost information system to better control its costs. The Treasury Board policy on fees charged to the public requires that departments and agencies consult clients on establishing service standards and the cost of those services. Currently, the Passport Office does not have adequate cost information on meeting service standards and, consequently, it cannot consult stakeholders about costs of regular or expedited services.

There is little contingency planning for crises

3.69 The Passport Office has experienced significant volume increases over the past few years. The increases of 2002–03 and 2003–04 were unusual, and the Greater Toronto Area experienced unprecedented demand. Although this was not anticipated, it was not entirely a surprise. At that time, the Passport Office had only long-term plans to address the general issue of rising volumes and their impact on customer service.

3.70 The field offices did have some measures or techniques that they used or developed in response to their volume crisis, but they were ultimately on their own. Regional managers and staff informed us that they worked longer hours or implemented innovative measures to try to cope with extreme volumes, but there was limited assistance offered by headquarters. There was no contingency plan, emergency fund, or temporary service locations to deal with an unprecedented demand. The Passport Office did not have an integrated risk management approach to ensure that it would be able to react to emergencies and cope with service demands before those emergencies became service failures.

Inability to forecast and influence demand places an undue burden on service

3.71 Year after year, demand for passports reaches a peak between November and March. As well, during this time there may be busier peak days of the week. The Passport Office does not have complete control over this phenomenon. However, it can influence demand to some degree. As early as its 2000–02 business plan, it discussed the concept of "flattening the demand cycle." The Passport Office's ability to influence demand is central to some of its key plans such as passport on-line and its renewals project, which times renewals for favourable periods of the year. At the time of our audit, phase I of passport on-line was being offered to the public as of the end of January 2005, and the renewal project had not been implemented.

3.72 In 2002–03, about 2.2 million passports were issued in Canada, a 13 percent increase over the previous year. The demand for passports normally varies according to the strength of the international economy, the season, and the occurrence of conflict abroad. But the 2003–04 volume significantly exceeded the Passport Office's forecasts. Forecasting is an important activity that is used to set budgets for each regional office. Acknowledging that their model required updating, the Passport Office developed and approved a new model in 2004.

3.73 **Services are provided through members of Parliament.** For over 30 years, the Passport Office has been accepting passport applications from members of Parliament (MPs) who forward them on behalf of their constituents. There is no formal agreement governing the process and the Office has not analyzed the security issues presented by this method of delivery. In 2003–04, the Passport Office processed 65,700 such applications. The service standard is 20 days, which is the same as for a regular application received by mail. MPs can enquire about the status of their applications by e-mail or a special telephone line. The passports are delivered to the MPs' offices by messenger service or can be mailed back to the applicants. The Passport Office estimates the cost per passport for this centralized service is less than the mail-in service, because there are fewer errors on the applications sent through an MP's office.

3.74 The Passport Office has not analyzed which of its different delivery methods are more desirable. It needs to balance the issues of access, security, cost, and impact on service delivery. Certain methods of issuing passports may be more cost-effective than others. The Passport Office needs to involve clients in setting reasonable standards that it can meet at reasonable cost without compromising passport integrity.

3.75 **Recommendation.** The Passport Office should

- develop and report on additional service standards, including information services such as e-mail, other correspondence, and telephone and track and control related costs;
- develop risk management practices and short-term plans to deal with extreme fluctuations in demand for service; and
- examine its service delivery methods with a view to influencing demand while improving cost-effectiveness and enhancing security measures.

Passport Office's response. The Passport Office agrees with the recommendation. New performance standards were introduced after September 11, 2001, as a result of the sudden increase in application volume and the introduction of new security requirements. It will develop and report on additional service standards.

It will introduce additional measures in 2005–06 to improve service in the areas of correspondence (including e-mail) and telephone inquiries. It will also introduce risk management practices and short-term plans to deal with fluctuations in volumes from both financial and operational perspectives.

Management of improvement initiatives

3.76 Although the Passport Office has documented its strategic planning process, weaknesses noted in the security and identity authentication activities, together with maintaining an adequate service level at a reasonable cost, impose considerable challenges. We examined its readiness to face those challenges.

3.77 We found nine strategic initiatives under way to either improve security or service, plus another five important projects that were not listed in the corporate planning document. For example, one project underway that would enhance security was a facial recognition capacity using submitted photos. Another project would streamline the passport renewal process and improve service. Many of these projects have been ongoing for several years and are not yet completed. The Passport Office's management has not prioritized those projects and weighed their relative importance. We found that the Office used no formal criteria to separate priority from non-priority projects, for ranking projects according to greater or lesser importance, or for sequencing projects in the order they must take place. Only budget criteria were consistently applied in assessing projects—to ensure that a project was not too costly.

3.78 We observed that management had not fully analyzed the impact of concurrent improvement projects on each other. For example, the Passport Office decided to open several new offices in recent years. At the same time, it has had projects in development for applying for a passport on-line and to allow people to renew their passports without presenting their source documents at passport offices. The Office opened two new offices in the Greater Toronto Area assuming they could downsize again if volume dropped as a result of those other strategic initiatives. We found that the quality of analysis for setting up new offices was poor and did not address many of the key requirements of a business case: cost benefit analysis; key assumptions and constraints; or implications on future operational costs.

3.79 Project management and policy change initiatives have a direct impact on the jobs of Passport Office staff. For example, the projects on renewals and passports on-line may result in a reduction of front-counter staff in local offices. On the other hand, the planned requirement for first-time applicants to make an appearance, instead of mailing their applications, could increase the demand on front-counter staff. We found no long-term, consolidated human resources plan to address the impact of such initiatives.

3.80 In 2002, the Passport Office adopted a framework for human resources planning and approved the Human Resources Strategic Plan and Action Plan in 2003. Responsibility and timing for several key actions still remain to be determined after two years. The Passport Office has yet to address the gap between future passport demand and its current human resources capacity.

3.81 Many technological and quality assurance improvements will need to be made to increase the security around the issuing of passports. As well, the Passport Office plans to make several changes to service delivery. In our view, even considering the improvements to service that have been made, its current management systems and practices are not adequate to meet those challenges.

3.82 **Recommendation.** The Passport Office should review, complete, and implement integrated human resource plans without delay and improve its management systems to enable it to

- prioritize its many improvement initiatives by ranking them according to approved criteria, and
- integrate the planning of new offices into its strategic framework and consider the mid- to long-term impact of all improvement initiatives on each other.

Passport Office's response. The Passport Office agrees to review, complete, and implement an integrated human resource plan in light of the *Public Service Modernization Act*. The reorganization and restructuring of the Passport Office and the establishment of a Major Projects Bureau in February 2005 will allow it to prioritize its improvement initiatives and rank them according to approved project management criteria. Improved project management processes will have a positive impact in supporting the long-term strategic vision of the Passport Office as a whole. The Office will ensure that the opening of any new offices will be integrated into the planning framework and reflect the strategic direction of the organization.

Fee increases

3.83 Charging for services differs from taxation in that the charge is for a product or service received by an individual, over and above what the general taxpayer receives. The Passport Office charged $158 million in fees in 2003–04 and collected another $54 million in consular fees that were deposited to the Consolidated Revenue Fund. Neither the Department of Foreign Affairs Canada nor the Passport Office has authority to re-spend the $54 million in consular fees. The Passport Office ended the 2003–04 fiscal year with a net income for the year of about $9 million and an accumulated surplus of $37 million.

3.84 The passport fee was set at $35 in 1992. In 1995, a consular fee of $25 was introduced to be charged on issuance of a passport, bringing the total fee to $60 charged to the applicant. In December 2001, the government raised the passport fee by $25 to a total of $85 for an adult regular passport. Of this, $60 funds the operations of the Passport Office through its revolving fund, and the $25 consular fee recovers consular services costs. The Passport Office does not manage or control consular activities in missions abroad.

3.85 **The setting of passport fees is controlled by regulation.** Passport fees are established by regulation under the *Financial Administration Act* and can only be changed by a regulation. The Act forbids user fee recovery in excess of costs. The Federal Regulatory Policy governs the development of regulations.

3.86 Key provisions of the regulatory process require a regulatory impact analysis as well as pre-publication in the Canada Gazette of the decision to impose a new fee. Prior to changing a fee, the proposal must include an analysis of the proposed regulation, the alternatives considered, a benefit-cost analysis, the results of consultations with stakeholders, the department or agency's response to any concerns raised, and the means of monitoring and enforcing the proposed fee or fee increase. The results of this analysis are summarized in a regulatory impact analysis statement.

3.87 Under the Treasury Board's Cost Recovery and Charging Policy and the subsequent External Charging Policy in effect until November 2004, departments had to ensure that there was a process for managing fee disputes. Although the Passport Office had an ombudsman function for passport issuance, it did not have a fee dispute management process as required by the policy.

3.88 **The 2001 fee increase did not fully comply with authorities** The Treasury Board's Guide to the Costing of Outputs in the Government of Canada defines full cost as the sum of all incurred costs, direct and indirect. The Guide provides examples of incurred costs, which are expenses that have been paid for. The Guide is silent about how to set fees based on projected future costs.

3.89 The Treasury Board's Guide to Costing of Service Delivery for Service Standards also states that costs recovered through fees are incurred costs. It does not consider using future cost projections as the basis for current fees. Passport Office and Treasury Board of Canada Secretariat officials told us that cost projections may be valid for the Passport Office as a basis for fee determination; they referred to a principle that applies to revolving funds of breaking even over a three- to five-year business cycle. We accept as reasonable that fees may be set based on projections within such a cycle, to the extent they are set to recover only expected incurred costs. This implies that, according to the *Financial Administration Act*, fees would need to be lowered if expected costs did not materialize over the cycle.

3.90 The Treasury Board, on the advice of the Secretariat, recommended the approval of the passport fee increase of December 2001 based on its projections over a five-year cycle. The projections included the full price of future capital project outlays. They also included building an accrual accounting surplus of $84 million and a cash surplus of $34 million by 2006–07.

3.91 We could find no Treasury Board policies or guidance that would allow for setting user fees to include an expected surplus above the projected cost.

3.92 In 2001, as part of its regular client satisfaction survey, the Passport Office asked whether respondents would support a potential $10 or $20 fee increase to offset the costs of new services and security features. There was low to moderate support. About the same time the fee was increased, service standards were lowered significantly. The Office also ran a focus group with travel agents and associations where a proposed fee increase of $25 was discussed. But there has been little discussion with clients about the increasing costs of providing passport services. The Treasury Board policies dealing with cost recovery required that departments and agencies identify and explain clearly to clients why the services are being delivered in the manner they are, how charges are determined, and how costs are being controlled. In our view, the Passport Office did not meet this on-going requirement.

3.93 **Treasury Board conditions with respect to consular fees were not followed.** When the Treasury Board approved the introduction of the consular fee in 1995, it required the Department of Foreign Affairs and International Trade, as it was then called, to absorb future costs and fully disclose the costs of consular services in its Main Estimates. However, there has been little cost information about consular services in the departmental annual reports to Parliament. Foreign Affairs Canada informed us that every year it had prepared an analysis of its consular costs. However, we could not audit these analyses for four of the years since 1995–96 because the Department could not locate the relevant files. Although the passport application showed the consular fee was $25 of the $85, there was no detailed information in reports to Parliament about what kind of costs justified the $25 fee. Passport applicants were not consulted as required and are not in a position to know what they are paying for or how the funds collected relate to the operations of consular activity. Consular fees collected increased from $34 million in 1996–97 to $54 million in 2003–04. Foreign Affairs Canada also directly charged $3 million for miscellaneous consular services in 2003–04.

3.94 **New user fee legislation imposes additional requirements**. As explained above, the Passport Office was not fully meeting the requirements under the Treasury Board policy on external charging. Parliament passed new legislation governing user fees in the spring of 2004. This legislation imposes additional requirements for transparency on how costs justify fees and on expected service levels. The Passport Office is not ready to comply with the new legislation because it lacks reliable cost information related to service standards.

3.95 **Recommendation.** In consultation with the Treasury Board of Canada Secretariat, the Department of Foreign Affairs and the Passport Office should review the process for setting the passport fee and client consultation on service levels to ensure compliance with the *Financial Administration Act*, user-fee legislation, and Treasury Board policies and guidelines.

3.96 **Recommendation.** The Passport Office should

- develop reliable cost information tied to service standards to justify current user fees and any future increases to user fees, and
- improve its method of client consultation to comply with new user fee legislation and ensure it has an appropriate mechanism for resolving fee disputes.

Passport Office's response. The Passport Office is currently establishing a Balanced Scorecard with a series of cost, performance, and security indicators. It will be introduced in 2005–06 and fully operational by 2007–08. With this approach, the Passport Office will be better able to determine the impact of new initiatives on its cost structures and in a position to take the appropriate action.

Activity-based costing will be introduced in 2005–06 and fully operational by 2007–08. It will allow the Passport Office to align costs with business lines and service standards.

In light of the events of September 11, 2001, the Passport Office did not have the opportunity to consult the public on the revised fee increase as security measures required immediate implementation. The Passport Office is committed to meeting all requirements for consultation in the future.

Conclusion

3.97 The Passport Office is struggling to balance and meet increasing security expectations and demands for service. It has not designed and implemented quality assurance for the examiner function and for effective security controls over the issuing of passports.

3.98 The Passport Office cannot effectively authenticate an applicant's identity and determine eligibility in all cases. Its watch list is deficient and not up-to-date. It has not found ways to automatically obtain necessary data from other government sources, or ways to effectively validate identity data with the provinces. Management's monitoring of security controls is poor. The Passport Office urgently needs to enter into co-operative arrangements with the provinces and other government departments to validate identity data and to obtain the data it needs to keep its watch list current and complete.

3.99 The Passport Office has so far established and achieved transparent levels of service, but it has not consistently consulted stakeholders on service standards and has had difficulty in controlling its costs.

3.100 Our audit has highlighted several areas that need urgent attention. The Passport Office needs to perform a comprehensive risk assessment of all its operations and prepare an action plan. The implementation of this plan should be closely monitored.

About the Audit

Objectives

Our audit objectives were to determine whether the Passport Office achieved the following at a reasonable cost:

- design, implementation, and monitoring of effective controls over the issuing of passports; and
- establishment and achievement of reasonable levels of service.

Scope and approach

The main focus of our audit was the security measures and identity verification undertaken by Passport Office examiners and support staff. We also assessed quality of service to the public, which the Passport Office considers integral to its operations. Finally, we assessed whether the Office complied with authorities for setting user fees.

We examined Foreign Affairs Canada's financial information about consular activities. We reviewed the Department's internal audit reports to assess security and service issues at missions abroad.

We reviewed regional and headquarters' documents, interviewed management and staff, interviewed Treasury Board of Canada analysts, sampled databases, performed quantitative and qualitative analyses, observed operations and conducted interviews at headquarters and 15 offices, and sent an e-mail questionnaire to a sample of examiners. We examined a risk-based sample of case files to determine the adequacy of the Passport Office's operating procedures.

For our e-mail questionnaire to examiners and our tests of guarantor checks, we selected samples from the populations provided to us by the Passport Office. All our samples were taken from the most complete data that were available at the time of our audit. We sent an interview questionnaire to 50 randomly selected examiners and received 36 responses. For guarantor checks we examined 100 passport applications that required mandatory guarantor checks.

For our examination of the lost and stolen passport reports, we randomly selected 115 reports from daily reports beginning in February 2004 when the Passport Office assumed responsibility for entering its data into Canadian Police Information Centre database.

Criteria

The criteria for this audit were based on the Canadian Passport Order, Passport Services Fees Regulations, the *Financial Administration Act*, Treasury Board policies and guides, and the Passport Office's manuals and guides.

We expected the Passport Office to have

- adequate procedures and processes in place to ensure that passports are only issued to eligible Canadian citizens;
- adequate procedures and processes in place to ensure that reasonable levels of service are established, achieved, and reported on;
- followed a formal project management process to improve service delivery; and
- complied with authorities for setting user fees.

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Report of the Auditor General of Canada to the House of Commons—April 2005

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2005

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APRIL

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Office of the Auditor General of Canada

The April 2005 Report of the Auditor General of Canada comprises six chapters, and a Message From the Auditor General of Canada and Main Points. The main table of contents is found at the end of this publication.

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Chapter

4

National Defence

C4ISR Initiative in Support of Command and Control

All of the audit work in this chapter was conducted in accordance with the standards for assurance engagements set by the Canadian Institute of Chartered Accountants. While the Office adopts these standards as the minimum requirement for our audits, we also draw upon the standards and practices of other disciplines.

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National Defence
C4ISR Initiative in Support of Command and Control

Main Points

4.1 National Defence estimates that by 2015 it will have invested almost $10 billion on projects to improve the way it gathers, processes, and uses military information. This is needed to provide commanders with better information for decision making in order to exercise faster and more effective command and control in both joint and combined operations. It is also to allow National Defence to keep up with the progress and changes being made by allies. This is a key part of the transformation of the Canadian Forces into the 21st century. The Command, Control, Communications, Computers (C4), Intelligence, Surveillance, and Reconnaissance (ISR) initiative is a strategy to help make this information-technology transformation happen.

4.2 The Department has made a good start in managing C4ISR and has put in place some guidance and methodology to help it achieve its goals. However, some of the key elements required to ensure successful implementation of the C4ISR initiative are not yet in place. National Defence must put a priority on producing its joint C4ISR doctrine, a concept of operations, a clear definition of interoperability, and a common understanding of what C4ISR means to better guide its development. National Defence has already invested about $4 billion of the almost $10 billion planned for projects that have a C4ISR component; however, without these key elements the Department is at risk of developing non-compatible or duplicate systems.

4.3 C4ISR is complex and expensive and constitutes a significant investment by the Department in improving the way it collects, processes, and uses information for operations, in particular joint and combined operations. The Department recognizes that the individual services cannot afford to pursue, nor should they pursue, C4ISR separately. The Navy, Army, and Air Force must work jointly to take advantage of economies of scale and achieve fully interoperable and integrated systems. While the Deputy Chief of Defence Staff is responsible for joint operations, the individual services have traditionally been responsible for generating what they need for those operations; therefore, C4ISR-related development has tended to be pursued along individual service paths rather than jointly. As well, existing joint-requirements committees need clearer authority and a stronger role in project approval to ensure that activities co-ordinate and meet joint expectations.

4.4 To have a C4ISR initiative that is affordable and achievable, National Defence needs mechanisms that help it choose which projects to pursue and to guide how systems will be developed. The Department is using a methodology that helps it define and refine C4ISR needs over time and has begun working on a common approach to designing its systems to meet those needs. However, projects already under way or being developed have not followed a common design approach and need to be reviewed to ensure they still meet the Department's intent. Without this adherence to a common approach, the Department has no assurance that its systems will converge and integrate as planned. Both a common design approach—or enterprise architecture—and a review of all projects need to be completed if the Department is to move forward in a structured, efficient, and disciplined way.

Background and other observations

4.5 The goal for the Canadian Forces, like other militaries around the world, is to improve the way it collects, analyzes, disseminates, and shares information gathered through C4ISR means to provide commanders with trusted and relevant information for decision making. Militaries are putting renewed efforts into C4ISR because of the opportunities information technology provides to enhance their own command and control.

4.6 In December 2003, the Department of National Defence released its C4ISR Command Guidance and Campaign Plan document to provide the Canadian Forces with high-level guidance and an integrated approach to develop and transform the capability into one that supports Forces-wide command and control into the 21st century.

4.7 By 2008, the Department wants to achieve its first C4ISR timeline and to have completed three overall phases—concept development, consolidation of projects and initiatives, and initial transformation; these involve the creation of an information-based culture and a network-enabled organization.

4.8 Our 1994 Report, Chapter 25, Information Technology recommended that command and control systems be able to interoperate in joint and combined operations, which the Department accepted as a mandatory requirement. The Information Technology Infrastructure and the Canadian Forces Command and Control Information System were both actively addressing these requirements. The Department acknowledged that joint interoperability had not received a high priority in these activities until the recent past. Nevertheless, our 1996 follow-up chapter concluded that the interoperability of command and control communication systems needed further development for joint and combined operations.

4.9 In our 1998 Report, Chapter 3, Equipping and Modernizing the Canadian Forces, we reported that, as far back as 1994, the Army had not kept pace with technology to modernize its equipment; this left it vulnerable to threats in low-level and mid-level operations. Some of those problems have since been corrected, but some have not. For example, National Defence has been working on implementing an Army communications system, which was to be completed by 2001 and was to be fully interoperable with other Canadian Forces command and control systems. By 2004, however, this was still not fully operational.

The Department has responded. The Department has indicated the action it has taken or intends to take to address the recommendations. Its detailed response follows each recommendation throughout the chapter.

Introduction

C4ISR—Command and Control, Communications, Computing, Intelligence, Surveillance, and Reconnaissance consists of the doctrine and concepts, the connectivity, the information systems, the sensors, and the tools required to effectively support Command across the entire spectrum of Canadian Forces operations through the timely attainment of trusted and relevant information.

4.10 A priority of the Department of National Defence and the Canadian Forces is to transform the way it conducts operations by taking advantage of advances in information technology. The goal is to support this operational transformation by developing C4ISR systems that can provide trusted, relevant, and timely decision-quality information to commanders. This will reduce uncertainty to the point where the commander is confident that the decisions being made are the best obtainable in the operational context.

4.11 According to National Defence, the conduct and character of war is changing. Rapidly integrating technologies are effecting important changes in our global society and in how the military operates. Many view the application of advanced technologies as a revolution in military affairs. Canada's allies are also pursuing these developments to ensure that they maintain modern and interoperable forces into the future.

4.12 Part of National Defence's role is to ensure Canadian sovereignty and to contribute to the defence of North America. In this role, National Defence sees a need for a greater ability to function jointly. As well, National Defence is now often required to work with other government departments and non-governmental organizations. In DND's view, our allies in NORAD and NATO want National Defence to be a competent partner capable of taking a meaningful part in combined operations. Therefore, the Canadian Forces must be interoperable with its defence partners; this means that it needs to keep pace with new military concepts, doctrine, and technological change.

4.13 *Shaping the Future of the Canadian Forces: A Strategy for 2020* provides the official strategic vision for the development of the Canadian Forces in the 21st Century. In its strategy, the Department states

> At its core, the strategy is to position the force structure of the Canadian Forces (CF) to provide Canada with modern, task-tailored, and globally deployable combat-capable forces that can respond quickly to crises at home and abroad, in joint or combined operations.

4.14 How well the strategy goals can be achieved will be determined in part by how well National Defence can integrate advanced information technologies with appropriate operational and organizational concepts.

Command and control—The exercise of authority and direction by a designated commander over assigned forces in the accomplishment of the force's mission. The functions of command and control are performed through an arrangement of personnel, equipment, communications, facilities, and procedures that are employed by a commander in planning, directing, co-ordinating, and controlling forces in the accomplishment of the mission.

4.15 In July 2002, National Defence reviewed its capabilities and identified gaps in its five capability areas in the document, Capability Outlook 2002–2012. It determined that a very serious shortfall existed in intelligence and information for command and control and that it needed to better develop joint doctrine, operational concepts, and training. The Department recognized that initiatives should be integrated and that failure to do so could result in a lack of interoperability within the Canadian Forces and with allies. The Capability Outlook 2002–2012 set out as priorities the following:

- the development of a truly CF-wide joint command system;
- a comprehensive plan for joint policy, concepts, and doctrine development;
- the development of a comprehensive strategic-operational joint command structure;
- the procurement of a coherent and fully integrated suite of intelligence, surveillance, and reconnaissance assets; and
- the establishment of intelligence and information fusion centres.

4.16 The Department has begun its C4ISR initiative to take advantage of information technology opportunities and address its capability deficiencies in a strategic way but also to ensure that operational requirements of the Navy, Army, and Air Force are met.

4.17 In its C4ISR capability analysis, the Department identified several areas to improve, such as the following:

- underutilization of existing network capabilities,
- no common goals or standards,
- lack of integration between projects,
- lack of a management system,
- need for cultural and organizational change,
- need for more personnel and training,
- bandwidth constraints, and
- funding constraints.

Focus of the audit

4.18 We evaluated the Department's progress in implementing key organizational and operational changes that would allow it to build toward C4ISR goals. Specifically, we focussed on progress that the Department has made in developing C4ISR guidance at the strategic level, which includes establishing clear and jointly accepted definitions, doctrine, lines of authority and accountability, a framework for a department-wide C4ISR architecture, and performance measures.

4.19 We also examined the progress National Defence has made in bringing together work already started to address capability deficiencies through C4ISR-proposed solutions. We examined the expected costs of implementing C4ISR solutions to determine whether the Department is putting forward requirements that are affordable and achievable. More information is available in **About the Audit** at the end of the chapter.

Observations and Recommendations

National Defence is moving in the right direction

4.20 We found that the Department has made progress toward addressing its C4ISR capability gaps. Under the Vice Chief of Defence Staff and the Deputy Chief of Defence Staff (DCDS), National Defence has set up the Joint Capability Requirement Board and the C4ISR Oversight Committee to provide a strategic perspective and leadership. These committees give senior management a forum to discuss joint C4ISR initiatives.

4.21 The Department has also initiated a Joint Capabilities Assessment Team to review identified operational requirements and assess whether specific projects and initiatives are consistent with joint goals. This Assessment Team can then advise the Oversight Committee and the Requirement Board on C4ISR opportunities.

4.22 The Department has produced its C4ISR Command Guidance and Campaign Plan as a vision and guidance for achieving C4ISR goals. In the Campaign Plan, the Department states that the services (Navy, Army, and Air Force) must not independently develop information systems for command and control. To do so could result in the services taking divergent paths, developing duplicate systems, and failing to take advantage of efficiencies. This would increase the risk that systems would not be able to interconnect when they need to, which is contrary to the Canadian Forces C4ISR goals.

4.23 To prevent this, the Department has adopted an enterprise model that brings together all information management activities and investments as part of a larger Defence strategy. Under this model, the services and groups are getting out of the business of doing their own information management work. The three services and the groups are responsible for identifying and determining their requirements and the Assistant Deputy Minister (Information Management) is responsible for systems design. By adopting this approach, National Defence wants to ensure that common protocols are followed as systems are developed. The Department expects that this will provide structure and discipline for C4ISR initiatives, so that by 2008 the Department will have integrated systems across functional areas.

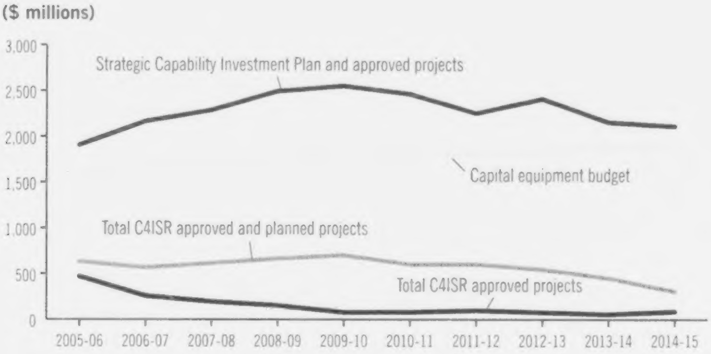
Affordability

Funding pressures could put some C4ISR projects at risk

4.24 We reviewed the planned spending for 91 projects that National Defence identified as a baseline for planning and implementing its C4ISR transformation. We estimate that expenditures related to C4ISR could total approximately $9.7 billion, of which about $4 billion has been expended to date and a further $5.7 billion in spending is planned by the Department over the next 10 years. In some years, annual spending for C4ISR will reach as much as 40 percent of the funding available in the capital equipment budget.

4.25 Exhibit 4.1 shows the forecast spending requirements for C4ISR projects and the total demand that this places on the available capital equipment budget. Even though the Department has had to make some hard choices in allocating its capital budget, more spending is forecast to complete already existing projects plus start projects identified in the Strategic Capability Investment Plan than the funding available in the capital equipment budget. This funding pressure could result in some C4ISR projects being scaled back, deferred, or cancelled.

Exhibit 4.1 C4ISR budget requirements for National Defence



Source: National Defence

4.26 C4ISR goals and timing could be at risk if the right projects cannot be funded or are deferred. The Department recommended a review of its C4ISR projects to ensure they are still operationally required, but we found that this had not yet been undertaken. This review is necessary to ensure that projects that are planned or already under way adhere to C4ISR guidance to avoid unnecessary duplication and to obtain the best result.

4.27 In its Strategic Capability Investment Plan 2004, National Defence identified which C4ISR projects it intends to start as a priority. There are three types of C4ISR projects that the Department estimates will need about $5.7 billion in funding.

- **Enabler projects.** These are considered key to implementing C4ISR. For example, the Canadian Forces Command System Phase II project ($102 million) is key to enabling better information integration. In all, the Department plans to spend about $882 million on 13 enabler projects over the next 10 years. All enabler projects have already been approved or are priorities for funding.
- **Related projects**. These are part of the C4ISR initiative to address capability deficiencies and continue the C4ISR transformation. For example, the Joint Space Support project and the Tactical Information Distribution Enhancement project are related projects. The Department plans to spend about $1.7 billion on related projects over

the next 10 years. We found that of 19 related projects, 10 have already been approved and are underway or completed. The other nine related projects, if approved, will require about $1.25 billion in funding over the next 10 years.

- **Other projects identified as part of C4ISR**. There are 59 other C4ISR projects that the Department has planned or already started. The Department has identified a need for about $3.1 billion in ongoing spending for these projects over the next 10 years.

C4ISR Implementation Strategy

C4ISR systems have been developed without a joint C4ISR doctrine or concept of operations in place

Doctrine—The set of fundamental principles that guide military actions in support of objectives.

Concept of operations—A clear and concise statement of the line of action chosen by a commander in order to accomplish the mission.

4.28 To be operationally relevant, defence programs are based on supporting doctrine and concepts of operations. A concept of operations guides planning, which translates strategic objectives into military operations by clearly stating the action needed to accomplish the mission. Doctrine is essential as it sets out the fundamental principles for how military operations are to be planned, trade-offs addressed, and actions conducted. The Canadian Forces Command System Framework Concept of Operations states that any equipment program, which includes C4ISR projects, must be based on supporting doctrine.

4.29 The C4ISR Command Guidance and Campaign Plan states that doctrine, concepts, and systems need to evolve along a single, convergent path that is interoperable across all environments. Without these, the Canadian Forces would not have a blueprint for how it intends to pursue C4ISR development to support the operational demands of the three services in a common way.

4.30 We found that the 91 C4ISR projects are proceeding without this blueprint in place. Therefore, it is difficult to link the projects back to an overall joint C4ISR objective or to obtain assurance that C4ISR work that is planned or already under way is proceeding in a common, interoperable way.

4.31 The three separate services—the Navy, Army, and Air Force—are responsible for developing and maintaining their own concepts of operations and doctrine. The Deputy Chief of the Defence Staff is responsible for doctrine and concepts of operations for joint and combined operations. The Department has stated that it has not yet bridged the gap between the joint level and the service level doctrine.

4.32 In August 2002, the Department noted that no effort was under way for the development of joint doctrine for C4ISR. At the time of this audit, the Department still had no plans to develop C4ISR doctrine even though the Defence Plan had called for joint interoperability doctrine and procedures to be developed and implemented by July 2004.

4.33 In order to develop systems consistent with its C4ISR vision, the Department needs to have doctrine and a concept of operations in place to ensure that it is not going in the direction it had warned itself against—that is, the development of duplicate or incompatible systems. With planned

C4ISR expenditures totalling almost $6 billion over the next 10 years, these key elements should be in place as soon as possible.

4.34 Tactical data links and bandwidth requirements are two examples of C4ISR projects that need a C4ISR concept of operation to guide development (see Tactical data links and bandwidth requirements on page 11).

Interoperability is not yet defined for C4ISR

Interoperability—The Canadian Forces does not have a definition of interoperability. NATO defines interoperability as the ability of Alliance forces and, when appropriate, forces of Partner and other nations to train, exercise, and operate effectively together in the execution of assigned missions and tasks.

4.35 National Defence has also expressed concern over its current level of doctrinal interoperability with its allies. An assessment conducted in 2002 concluded that most interoperability concerns could have a major or significant impact on operations.

4.36 National Defence does not have an approved definition of interoperability for joint and combined operations. It has not adopted the NATO definition of interoperability for joint and combined operations into its documentation. According to departmental documents, the NATO definition is NATO-centric and does not suit Canadian Forces requirements. However, no other definition has been developed. The Department plans to establish an interoperability working group to address the need for a departmental interoperability plan.

Some important elements of a C4ISR implementation strategy need to be better developed

4.37 **Tasking.** The Defence Plans make it clear that National Defence will develop its C4ISR capability; further, the Plans give specific direction to the DCDS, Chief of the Maritime Staff, Chief of the Land Staff, Chief of the Air Staff, ADM (Information Management), and ADM (Science and Technology) to do so. The services and groups are to "self-synchronize" their activities and efforts using the C4ISR Command Guidance and Campaign Plan and the Target Integration Model 2008 increments.

Self-synchronization—The alignment of Groups' and Services' activities, to coincide with and complement the overall Campaign Plan, without external control.

4.38 This self-synchronization is to occur through the business planning process, in which the three services and the groups identify their operational requirements and any related C4ISR needs. The services and groups need to determine how they will self-synchronize their activities. However, the C4ISR Command Guidance and Campaign Plan explains that self-synchronization will take place as synergy is created between C4ISR doctrine, concepts, and capabilities. Therefore, in order for self-synchronization to work, the Department needs to have in place the necessary doctrine and concepts of operations.

4.39 **Directives.** The C4ISR Command Guidance and Campaign Plan was approved by the C4ISR Oversight Committee and signed by the DCDS as the Chair of the C4ISR Oversight Committee. A presentation was made to the Defence Management Committee on the progress achieved so far, in February 2003, and the Requirement Board endorsed the Campaign Plan in December 2003. However, we did not find any directive issued by the Deputy Minister or the Chief of the Defence Staff to implement the C4ISR Command Guidance and Campaign Plan. Nor did we find any directives issued by groups and services to their subordinate levels.

Tactical data links and bandwidth requirements

The C4ISR initiative is intended to reduce uncertainty to the point where commanders are confident that the decisions they are making are the best obtainable in the operational circumstances. The overall vision is to develop a C4ISR capability that supports the command and control function by providing commanders with situational awareness and a common operating picture in real or near-real time. Investment in C4ISR will enable networked forces, tailored by task, to conduct integrated operations across the full range of military activities.

Tactical data links. Tactical data links (TDL) are a technology that enables standardized communication pathways to commanders during operations. TDLs connect commanders in networks to a continuous flow of information, so that each commander can then make best use of available sensors and weapons.

Tactical data links are primarily for wireless transmission via radio and satellite, but connections through secure landline are also vital to support deployed operations. TDL capabilities have been identified as a "must have" for coalition operations. The Chief of the Defence Staff has also underscored the need for joint force development and to properly situate TDL development within the Department. However, there is a high risk that TDL capabilities will be implemented without a consolidated joint strategy across the Canadian Forces. There is no one source in the Canadian Forces that provides an overview of wireless systems employed or planned for use in the Canadian Forces. A Concept of Operations for Tactical Data Link Systems was drafted in February 2003 but has not yet been approved.

In 2004, there are three projects to develop TDL capability within the Navy and the Air Force, estimated at $175 million, of which $25 million has already been spent by the Department.

Bandwidth. Bandwidth refers to the size of the connecting "pipe" that information flows through between communication terminals. Bandwidth determines the rate at which data can be transmitted: the greater the bandwidth, the greater the amount of information that can be sent to networked commanders in a given amount of time. Sufficient secure bandwidth must be provided to carry out C4ISR functions.

The Canadian Forces' bandwidth use has increased eight-fold in eight years and is expected to continue to increase due to the demands of new sensor data, information systems, and ISR fusion requirements. By 2010, unless changes are made, National Defence expects it will not be able to meet bandwidth requirements. The Department has endorsed a strategy to develop capability to respond to the need to provide sufficient bandwidth to deployed operations. The endorsed strategy emphasizes increasing joint investments in satellite technology.

Currently, however, there is no common concept of operations to manage satellite channels and bandwidth demand within the Department. The capabilities for managing channels that exist have been developed on a system-by-system basis. No standardized architecture or commonly recognized interface standard exists to address needs for increasing bandwidth capacity over satellite data links for command and control. Without this architecture, there could be a proliferation of independent communication systems instead of networked systems.

In 2003, the Department spent $18.7 million to lease commercial satellite capacity to support deployed operations. Currently, there are five projects in the Department to develop satellite broadcast capabilities and improve joint satellite communications, estimated at $693 million.

4.40 The Department may issue a departmental administrative order and directive to announce the departmental policy to implement the C4ISR initiative, but this has not been done. Such an administrative order could provide specifications on definitions, policy direction, roles, responsibilities, and authority.

4.41 **Definition.** We found that different people interpret C4ISR to mean different things; the Department also commented on this issue in its documentation. The C4ISR Command Guidance and Campaign Plan needs to be updated to include achievable goals, criteria to declare success, mission, resources, constraints, and strategic direction to commanders as outlined in the Canadian Forces Operational Planning Process. If this is done, it would better clarify C4ISR.

4.42 **Groups and services plans.** Consistent with the Department's enterprise model, in March 2004 the Assistant Deputy Minister (Information Management) requested that groups and services produce an information management/information technology plan by June 2004 to interface with the information management group. However, at the time of our audit, ADM (IM) had not received all of the expected information.

4.43 **Supporting plans.** We found that of the ten supporting plans identified in the C4ISR Command Guidance and Campaign Plan, work had started on only four. Work on the ten plans was to have been initiated by April 2004. Although departmental documentation indicates that four plans were developed, the Department was not able to provide us with copies of any of the plans.

4.44 **C4ISR implementation risk assessment.** National Defence has an Integrated Strategic Risk Management Framework to define corporate risk and how to manage it. The framework is intended to suggest risk-management actions and methods that will support Defence objectives. The Treasury Board concept for an integrated risk-management function expects that departments will set up the corporate infrastructure for risk management to provide clear direction and senior-management support. National Defence has chosen to depart from the Treasury Board approach and use its existing committee structure and planning process.

4.45 The Department has not yet conducted a risk assessment for its strategic C4ISR initiative. The C4ISR Command Guidance and Campaign Plan identified "risk mitigation decisive points," which talk about five possible risk weaknesses. However, the Department needs to fully assess these areas against risk likelihood and potential impact and then develop a risk-management strategy.

4.46 **Recommendation.** National Defence should put a priority on developing joint C4ISR doctrine, concept of operations, and a definition of interoperability by the end of 2006.

Department's response. Agreed. Doctrine, operating concepts, and clear definitions are recognized as important elements of C4ISR implementation, and their development continues to be a high priority. Although the writing and approval of doctrine and concepts of operations are complex undertakings, the Department will endeavour to have these elements developed by the end of 2006.

Stronger C4ISR management is needed

4.47 The C4ISR Oversight Committee and the Joint Capability Requirement Board were created in 1999 and 2000 respectively in response to a need for more co-ordination of requirements. The Joint Capability Requirement Board's responsibility is to facilitate a joint understanding of concepts of employment and operations, reach consensus for statements of operational requirements, and resolve issues of project scope at the corporate level. The C4ISR Oversight Committee provides a strategic perspective and leadership on all C4ISR—related matters.

4.48 Departmental documents indicate that there are problems with this committee structure due to a lack of clear lines of authority. Although the C4ISR Oversight Committee is in place to provide executive oversight and a co-ordinating role to manage the ongoing tasking of C4ISR, there is no one C4ISR authority enforcing important elements such as the implementation of the C4ISR Command Guidance and Campaign Plan or the review of projects.

4.49 We found that departmental officials often bypassed this committee structure prior to C4ISR projects approval. Therefore, we were unable to determine how these committees were able to fulfill their review and co-ordinating role for C4ISR. Since 1999, only 6 of 13 enabler projects and 2 of 19 related projects were submitted to either the C4ISR Oversight Committee or Requirement Board for discussion before going to the Program Management Board for funding approval.

4.50 We also found that about 72 percent of the C4ISR enabler and related projects were missing key documentation necessary for project review and approval. Projects were missing either the synopsis sheet to identify deficiencies or the statement of operational requirements, or both. To date, National Defence has spent about $2.9 billion, of the estimated $3.7 billion required, on enabler and related projects that did not have approved statements of capability deficiency or statements of operational requirement.

4.51 The Joint Capabilities Assessment Team noted that it was very difficult to create a list of prioritized C4ISR projects because such a process requires the comparison of a large number of dissimilar items. The Assessment Team also noted that the problem is further complicated by the breadth of issues being considered, which are so large that it is difficult to find a decision-making body with detailed knowledge of all projects.

4.52 Department officials informed us that the Requirement Board and C4ISR Oversight Committee do not have the resources to become more involved in the project selection process as much more staff effort would be required. As well, the Oversight Committee would have to meet more frequently.

4.53 **Recommendation.** Senior management should ensure that, in the future, all projects justified as part of C4ISR are reviewed and approved by the Joint Capability Requirement Board and the C4ISR Oversight Committee, as part of the project approval process to provide assurance that the projects will ultimately be compatible with C4ISR goals as they evolve.

Department's response. Agreed. Future C4ISR projects will be subject to review by the Joint Capability Requirement Board and the C4ISR Oversight Committee.

Work is starting on a C4ISR enterprise architecture framework

4.54 In 2002, an internal review of information management found that National Defence did not have a comprehensive, information-management architecture and found several instances of duplication and overlap. As a result of these findings, the Department adopted its enterprise model for information management, which included a commitment to create an enterprise architecture. The Assistant Deputy Minister (Information Management) has begun working on an enterprise architecture framework that includes developing a plan to show how information will be sourced, collected, and integrated within and across functional areas in the Department.

Enterprise architecture—A strategic information asset base, which defines the mission, the information necessary to perform the mission, the technologies necessary to perform the mission, and the transitional processes for implementing new technologies in response to changing mission needs.

4.55 The Department has identified activities it needs to do to begin developing its enterprise architecture. It issued an Integrated Defence Enterprise Architecture Plan (Draft)—October 2004 to communicate the core enterprise architecture principles of the Department and to plan which activities it will complete by 2006.

4.56 The Department acknowledges that its key challenges in enterprise architecture are to determine, identify, and plan which portions of its three defence information management portfolios—military, corporate, and common—must become interconnected, interoperable, or integrated to avoid duplication and increase flexibility. As well, the Department needs to devote the appropriate resources to the right priorities.

Portfolios—The **military** portfolio encompasses three generic system families—Command Decision Support, Sensor, and Weapon (control) system families.
The **corporate** portfolio encompasses one generic system family—the resources management systems family.
The **common** portfolio encompasses two generic system families—the information management and security system families.

4.57 Another challenge for the Department is to ensure that C4ISR projects already planned or currently under way will be aligned with the enterprise architecture that is to be developed. The Department needs to take appropriate action to ensure that systems will converge the way senior management expects. The Department recognized that a review of projects and initiatives, developed either centrally or by the separate services, should be done since many projects were begun before National Defence issued its C4ISR Command Guidance and Campaign Plan. As a result, the Department needs to ensure that projects planned or already under way are consistent with the direction now being developed.

4.58 Without an enterprise architecture, the Department runs the risk of buying and building duplicate systems or systems that are incompatible and unnecessarily costly to maintain and integrate. This architecture is critical because it serves to inform, guide, and constrain the decisions of the Department, especially those related to investments in information technology.

4.59 **Recommendation.** National Defence should complete its enterprise architecture as a priority.

Department's response. Agreed. Based on the findings of the Department's Information Management Strategic Review, and ongoing activity to establish an Information Management Strategic Plan, the establishment of an enterprise architecture is indeed a high priority. Enterprise architecture and the C4ISR Campaign Plan should build upon each other in an iterative, symbiotic manner in order to produce an enterprise architecture that best supports operational requirements and, by extension, C4ISR.

Use of spiral development methodology is appropriate but needs to advance

4.60 By 2008, National Defence plans to have implemented C4ISR through 11 increments of 6 months each, which are known as spirals. These are leading up to its Target Integration Model 2008. Each spiral has objectives and/or capabilities. At the end of each spiral, the objectives or capabilities acquired are used as a base for the achievement of the next spiral. Those not met may be deferred to future spirals or cancelled. Such flexibility separates spiral development methodology from the traditional method or waterfall development.

Spiral development methodology—A project development methodology, which means one stage is not wholly dependent on the successful delivery of the previous stage. In spiral development methodology, several stages can occur repetitively and concurrently.

4.61 Spiral development methodology seems appropriate to C4ISR implementation since the overall requirements are broadly defined, and the specific end-product is not yet known. This methodology allows for the evolution and refinement of requirements as necessary during development. At the time of our audit, the Department stated that it had completed the first and second spirals and was beginning work on the third.

4.62 One of the goals of C4ISR is to support the operational requirements of the three Services and Groups. Initially, the Department chose to develop its C4ISR plans centrally and, following the release of the C4ISR Command Guidance and Campaign Plan, would increase participation. However, the Department was unable to provide evidence of user involvement in defining C4ISR requirements at the operational level. We were informed that a process to solicit feedback does not currently exist; however, the Department has recently held a user workshop. Obtaining and assessing user requirements is critical to the success of spiral methodology because, without identified user requirements, there is a risk that the objectives and capabilities developed will not meet the needs of users.

4.63 The spiral objectives were developed in the absence of an enterprise architecture. We believe that future spirals should be re-aligned to the enterprise architecture as it is developed to provide senior management with assurance that the C4ISR initiative is going in the right direction. The

Department has recognized the need to align C4ISR with an enterprise architecture and informed us that ways and means of resourcing this task are currently under consideration.

4.64 We also noted that the spiral objectives stated by the Department are broadly defined and subject to wide interpretation, which makes it easy for the Department to conclude they have been achieved. Exhibit 4.2 provides our review of some of the objectives stated in spiral two and how they could be improved, so that they are more specific, measurable, achievable, relevant, and time-related.

Exhibit 4.2 A review of spiral-two objectives

Spiral-two objective	Long-form description of spiral-two objective	Suggested elements to add to transform to smart objective
7(h) – 2.21	"LOG COP [Logistics Common Operating Picture]: An analysis with regards to developing sustainment information on a CF-wide COP is to be initiated. It is requested that the Sustain JCAT [Joint Capabilities Assessment Team] act as lead agency."	• Define "initiated" • List specific outcomes (expected qualitative and quantitative benefits) to be gained from completing this analysis • Describe and define methodology to be used for the analysis or exercise • Describe analysis'/exercise's relevancy to C4ISR • Specify owner (individual's name) accountable for the completion of the analysis or exercise • Define completion (examples: "draft"; "mature draft"; "final approved draft") • Specify owner (individual's name) accountable for the review of the analysis/exercise after completion • Specify resources required • Specify stakeholder groups to be consulted, if any
8(a) – 2.22	"C4ISR CP—R&D (C4ISR Campaign Plan—Research & Development. Component: Identify links between current C4ISR R&D and OR (Operational Research) projects and the C4ISR CP, and, identify gaps, if any, in the current C4ISR R&D/OR program and resulting tasks."	• Specify outcomes (expected qualitative and quantitative benefits) to be gained from completing this analysis • Describe exercise relevancy to C4ISR • Describe and define methodology to be used for the gap analysis • Specify owner (individual's name) accountable for the review of the gap analysis • Specify if approval is required for completion to take place • Specify resources required • Specify stakeholder groups to be consulted, if any • Define whether the 6-month time frame is adequate or whether a portion will be deferred to the next spiral. If so, describe pieces expected to be deferred

Exhibit 4.2 A review of spiral-two objectives (continued)

Spiral-two objective	Long-form description of spiral-two objective	Suggested elements to add to transform to smart objective
9(a) – 2.26	"Industry Engagement Strategy: DJFC (Director Joint Force Capabilities) and DBDO (Director Business Development Office) (DRDC) (Defence Research Development Canada) to lead efforts in developing an Industry Engagement Strategy for C4ISR development."	• Define "Engagement Strategy" and "pervasive procedures" • List specific outcomes (expected qualitative and quantitative benefits) to be gained from these analyses/exercises • Describe exercises' relevancy to C4ISR • Describe and define methodology to be used for the Strategy and pervasive procedures • Specify owner (individual's name) accountable for the review of the Strategy and pervasive procedures
9(c) – 2.28	"National Operations/ Intelligence Centre C4ISR Policy: DJFC, in conjunction with NDCC (National Defence Command Center) JOG (Joint Operating Group) and JIIFC (Joint Information and Intelligence Fusion Capability), is to lead efforts in establishing pervasive procedures and policy for common use throughout CF Operations/ Intelligence Centres."	• Specify if approval is required for completion to take place • Specify resources required • Specify stakeholder groups to be consulted, if any • Define whether the 6-month time frame is adequate or whether a portion will be deferred to the next spiral. If so, describe pieces expected to be deferred
10 – 2.30 to 2.35	"C4ISR Supporting Plans: Spiral 1 tasked the initiation of a series of plans to support the C4ISR CP. A number of these plans did not achieve maturity during Spiral 1."	• Define "initiation" • Cite assurances obtained that no other supporting plans are required and or relevant for C4ISR purposes, and how assurances were obtained • Specify outcomes (expected qualitative and quantitative benefits) to be gained from "initiating" these supporting plans • Describe and define of methodology to be used for the "initiation" of the supporting plans • Specify owner (individual's name) accountable for the review of each supporting plan • Specify if approval is required for completion to take place • Specify resources required for each plan • Specify stakeholder groups to be consulted, if any • Define whether the 6-month time frame is adequate or whether a portion will be deferred to the next spiral. If so, describe pieces expected to be deferred.

Source: National Defence spiral-two objectives

4.65 We found that key performance indicators had not yet been developed at the time of this audit. The absence of indicators means that the Department can declare that any or all of its objectives have been achieved. For example, the Department had concluded that 20 of the 41 spiral-one objectives had been significantly or totally fulfilled, but we were informed that this assessment was done subjectively, with no formal assessment criteria. Our review found that, for 12 of those 20 objectives, it was difficult to conclude, from the evidence presented, whether substantial completion had in fact been achieved. It was too early to assess the success of spiral-two objectives, as they were just being completed.

4.66 **Recommendation.** The Department should review its spiral objectives to ensure that they are sufficiently clear so that results can be measured.

Department's response. Agreed. The "spiral" objectives in the C4ISR Campaign Plan are under constant review. Spiral development is actually designed to evolve as implementation proceeds and the desired end state becomes clearer.

The tasks and objectives analyzed during this audit were in the first two spirals of the campaign plan. With the passing of each spiral, lessons are learned, tasking methodology is improved, and objectives are clarified. In this regard, many of the suggestions made by the audit team during the course of this audit have already been incorporated into spiral three and will be built increasingly into subsequent spirals.

4.67 **Recommendation.** The Department should develop key performance indicators that can provide senior management with a true measure of what has been achieved.

Department's response. Agreed. As outlined in the response to 4.66 above, the Department will establish and implement measurable indicators of success, where practicable.

Human resources management

Action to develop skilled C4ISR human resources is lagging behind other activities

4.68 C4ISR transformation will require the appropriate number of personnel with the right skill sets to exploit information technology opportunities. In 2003 the Canadian Forces was short more than 700 officers and enlisted members with the necessary skills and training in occupations needed for C4ISR. National Defence believes that most skill sets associated with developing C4ISR capability can be achieved from within the Canadian Forces. However, three critical skills sets have been identified that will be difficult to address within available and projected military human resource levels:

- ISR fusion analysts—for specific spectral systems,
- content managers—for information processing and database management, and
- Web administrators—for Web-based content management and dissemination.

4.69 Conversion training and modification of existing training plans for the necessary skill-sets and career paths will not begin until 2007. As well, according to National Defence, a four to seven-year lead time is required to recruit and train personnel with strong information management or information technology skills. Attrition is expected to add to the shortage of C4ISR skills. The Department recognizes that mitigating strategies must be developed to address issues such as training and technical support services.

4.70 The Department is addressing some concerns through its Military Occupational Structure Analysis, Redesign and Tailoring (MOSART) project, but we were informed that identification of C4ISR human resources requirements will not be finished until fall 2007. The Department needs MOSART to determine its C4ISR-job requirements so that it can ensure that its C4ISR direction is realistic and achievable, given human resource limits. Training and recruiting programs must be developed in time to have skilled people available when needed. We are concerned that work to resolve human resource issues is not advancing at the same pace as the rest of the C4ISR transformation, putting at risk the ability of the Department to meet its own demands.

4.71 **Recommendation.** Senior management should take action to more fully and quickly integrate human resources planning into its C4ISR implementation strategy.

Department's response. Agreed. The Department is very cognizant of the importance of the human dimension of C4ISR, and we are currently making every effort to ensure that appropriately skilled personnel will be available when they are required to fill C4ISR jobs. In this regard, although it is acknowledged that it does take four to seven years from recruitment until technical personnel are fully trained, the majority of C4ISR jobs are expected to require senior military personnel. For the near future, therefore, these jobs will be filled by existing military personnel rather than by new recruits. Where practicable the military personnel selected to fill these C4ISR jobs will receive any additional skill sets required for specific jobs. In addition, some skill-set shortages can be mitigated through the use of civilian resources.

In recognition of the importance of HR, the assistant deputy ministers responsible for military and civilian personnel are represented on all departmental decision-making and review boards. They have also put an HR plan in place to address C4ISR requirements. This plan has been fully integrated into the overall C4ISR Campaign Plan and is aggressively being followed to provide the HR requirements needed to achieve a fully integrated and interoperable C4ISR capability by 2008.

Conclusion

4.72 The C4ISR initiative that the Department is pursuing is the result of its assessment of critical command and control capability deficiencies, which it recognizes must be addressed. To ensure that it achieves its goal of providing commanders with decision-quality information when they need it, the Department wants to have fully integrated and interoperable command and control systems by 2008. If the Department is to achieve this timeline, there are some barriers to C4ISR implementation that it must resolve soon.

4.73 National Defence has put in place appropriate spiral methodology for identifying and refining requirements, which allows them to make necessary changes during development. With this methodology the Department needs to do the following activities to improve results:

- conduct a review of current and planned C4ISR projects,
- clearly define spiral objectives and performance measures,
- increase user involvement in defining requirements, and
- ensure that the development of an enterprise architecture is a priority and that C4ISR objectives are consistent with enterprise architecture intent.

4.74 Funding for C4ISR projects will have to compete with other capital budget priorities. The Department has identified priorities and planned its capital spending, but plans exceed budget availability. These funding pressures put these projects at risk. All projects need to be reviewed to ensure that the right projects are prioritized and that they are consistent with the stated C4ISR objectives.

4.75 Some components of the C4ISR initiative are progressing faster than others, and this puts the Department at risk of developing systems that duplicate each other or will not be interoperable and integrated. Systems are developing without joint C4ISR doctrine or concept of operations, including a definition of interoperability, or enterprise architecture in place to ensure that they develop in a common way. This system development guidance is necessary if systems are to integrate in 2008. As well, efforts to ensure that appropriate skilled personnel will be ready when they are needed are lagging.

4.76 Governance mechanisms that are guiding C4ISR progress are not strong enough. Questions of policy direction and authority have not been resolved despite departmental recognition of problems. As a result, some projects are not getting needed committee challenge and endorsement, uncertainty exists in defining C4ISR objectives, and joint and combined interoperability remains unclear.

About the Audit

Objectives

The overall objective of our audit was to determine how well National Defence has been able to identify and exploit information technology opportunities to support command and control and whether National Defence has a plan that is affordable and achievable.

More specifically, we assessed the extent to which

- the C4ISR concept could support the command and control capability of the Canadian Forces from the strategic level down to operational and tactical levels; and
- the C4ISR plans and projects were achievable and affordable.

Scope and approach

We conducted our audit at National Defence Headquarters, and conducted field visits to Maritime Forces Atlantic (Halifax) and Maritime Forces Pacific (Esquimalt), Land Forces Québec Area (Montréal), Area Support Unit and 5th Brigade Group in Valcartier, 1 Canadian Air Division and the Canadian Northern Region headquarters for NORAD in Winnipeg as well as Defence Research and Development Canada establishments in Valcartier and Shirley's Bay.

The audit team interviewed personnel in the DCDS and VCDS organizations as well as ADM (IM), ADM (S&T), ADM (Mat), and ADM (Fin CS) personnel; examined department files; and relevant documents. NATO and NORAD policies, standards, and agreements were referenced where appropriate.

Expenditures were tracked using data from the Financial Management and Accounting System, the Capability Initiatives Data Bank, and the Strategic Capability Investment Plan.

We looked for a clear understanding of C4ISR concepts and connectivity requirements. We investigated whether projects identified as needed were affordable and achievable, and examined interoperability for the conduct of joint and combined operations. We also examined how the C4ISR project approval process examines requirements for implementation of the C4ISR initiative.

Criteria

We expected that National Defence would

- clearly define C4ISR and articulate what the Department is trying to achieve through objectives that are specific, measurable, achievable, relevant, and time-oriented;
- ensure that the implementation of the C4ISR Campaign Plan is affordable within the planning time frame; and
- comply with the Treasury Board Secretariat and National Defence risk management policy and framework in implementing the C4ISR concept.

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Chapter 5
Rating Selected Departmental Performance Reports

Office of the Auditor General of Canada

The April 2005 Report of the Auditor General of Canada comprises six chapters, and a Message From the Auditor General of Canada and Main Points. The main table of contents is found at the end of this publication.

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Chapter

5

Rating Selected Departmental Performance Reports

All of the audit work in this chapter was conducted in accordance with the standards for assurance engagements set by the Canadian Institute of Chartered Accountants. While the Office adopts these standards as the minimum requirement for our audits, we also draw upon the standards and practices of other disciplines.

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Rating Selected Departmental Performance Reports

Main Points

5.1 We assessed the quality of the departmental performance reports of three departments—Environment Canada, Fisheries and Oceans Canada, and Natural Resources Canada—to determine whether progress had been made in improving the quality of their reports against our criteria. In assessing the departments' performance reports against our rating model, we found that the quality of the reports had improved marginally, at most, over the two-year period between 2002–03 and 2003–04. Over the nine-year period, between 1995–96 and 2003–04, we found that two departments had achieved some modest improvements while the other department showed mixed results. Despite these modest improvements in performance reporting over the nine years, the latest performance reports still fall short of our criteria for good-quality reporting.

5.2 We found that most of the performance reports provide a good overview of each department's organizational context and planned strategic outcomes. However, performance expectations are not always clear and concrete, and the information does not necessarily focus on program results. Furthermore, the reported results are not always balanced and supported by data sources and data limitations. As well, the reports provide little evidence that performance information is used to make decisions about improving program results in future years.

5.3 While we cannot generalize from the results of rating three reports in each of three years to trends across all government departments, our findings continue to leave us as concerned about the overall quality of reporting as we were in our previous audits and studies. Based on these findings, it is reasonable to suggest that, without greater effort by departments and scrutiny by parliamentary committees, any significant improvements in the quality of performance reporting may take decades rather than just a few years. In our view, this rate of improvement is not good enough for parliamentarians and Canadians to be able to hold departments and agencies to account for their performance.

Background and other observations

5.4 Parliament holds government accountable for spending in the previous year, influences future plans and priorities, and approves expenditures for the upcoming fiscal year. Parliamentarians should rely on performance reports to keep informed about the performance of the government on key issues. They should also use these reports to hold ministers to account for departmental spending. As well, Canadians want to know if their taxes were spent where parliamentarians intended. They also want to know if they received good value from their government in return for their taxes. Consequently, effective accountability to parliamentarians and Canadians depends in large part on good-quality performance reporting.

5.5 In response to this need, Parliament and the government have sought to improve the quality of departmental performance reporting for some time. For example, Part III of the Estimates was created in 1981 and then separated into planning and reporting documents on a pilot basis in 1995 and permanently in 1997.

5.6 Our Office has also been concerned about the quality of performance reporting. We have reflected this concern through our audits since at least 1988 when we found clear shortcomings while also noting some improvements. In 2000 we examined the quality of departmental performance reports and concluded that federal departments' and agencies' progress in improving the quality of their performance reporting to Parliament was disappointing.

5.7 To assist us in our subsequent work, we developed a formal set of criteria for good reporting and presented it in 2002 as a model for rating departmental performance reports. In the following year, we reported on the results of applying this rating model to the departmental performance reports of nine departments. While we identified some promising practices, together with many challenges, overall we found that the reports did not measure up against our model as well as we had expected.

5.8 This is the second time that we have used our model to rate a selection of performance reports. However, it is the first time we have compared a department's reports over one or more periods to assess progress in improving the quality of reporting. Overall, we found that progress in improving performance reporting to Parliament continues to be a challenge for the three departments, even after almost a decade of effort.

The government has responded. The government has responded to our observations and informs us that it will continue its efforts to improve performance reporting across government departments.

Introduction

Performance information continues to be important

5.9 Good-quality performance reporting is a key means for Canadians to hold their government to account. This is because Canadians want to know the value they are getting for their tax dollars and the difference that government departments are making in their lives.

5.10 Good performance reporting is also fundamental to effective governance and accountability to Parliament. In order to monitor government programs and services effectively, parliamentarians need to be provided with timely, accurate information about the cost and performance of key government programs. They also need reports that are relatively short and easy to read.

5.11 Departments should also use the same kind of performance information to help them produce better results. As we said in our 2000 Report, Chapter 20, Managing Departments for Results and Managing Horizontal Issues for Results, we associate good performance reporting with sound performance management. Good performance reports intended for external accountability should reflect how departments are managed internally. In our view, they should be a routine spin-off from sound performance management in a department.

5.12 For some time, the government has sought to improve the quality of information provided to parliamentarians by government departments. In 1981, it created the Estimates Part III in an effort to improve and expand the information on planned departmental spending and on departmental performance. In 1995, Parliament initiated the Improved Reporting to Parliament Project, which separated the planning and reporting documents in an attempt to provide parliamentarians with an improved structure for delivering complex information.

5.13 About 90 federal departments and agencies now submit a performance report to Parliament every fall. Each report should outline the accomplishments of the department to the end of the fiscal year just completed against the commitments made in its report on plans and priorities published the previous year.

5.14 Through our work we have supported parliamentarians in their efforts to improve the quality of departmental reporting (Exhibit 5.1). In 1997 we examined the state of the government's reporting regime. We found that the reporting framework was basic but sound and that it provided a promising start for reporting. However, when we looked again at performance reporting in 2000, we were disappointed that only modest improvement had been made in improving the quality of departmental performance reports.

5.15 The Eighth Report of the Standing Committee on Public Accounts for 2001 emphasized the importance of good-quality performance reporting. The Committee recommended that we "conduct random audits of the information contained in the performance reports of departments and agencies in order to verify, among other things, that the information contained in these reports is a fair representation of accomplishments against goals and objectives."

5.16 In 2002 we responded to this request by producing a formal set of criteria for good-quality performance reporting and presented the criteria as a model for rating departmental performance reports. These criteria elaborated on those developed in our earlier work.

5.17 Among other initiatives to advance performance reporting, each year the Treasury Board Secretariat produces guidelines for departments to use when they prepare their performance reports (Exhibit 5.2). The guidelines include performance reporting principles that are generally consistent with our criteria.

Exhibit 5.1 Our previous audits and studies

1988	1988 Report of the Auditor General, Chapter 5, Information for Parliament—Audit of the Estimates Documents We noted that Part III had steadily improved since 1981 and represented the best single source of information on departmental programs. However, we concluded that it did not yet provide a fully satisfactory basis for accountability.
1992	1992 Report of the Auditor General, Chapter 6, Information for Parliament—Departmental Reporting We observed that departmental reporting did not provide the breadth of information needed. We highlighted inconsistencies between the way departments carried out their business and what they reported. In particular, we noted a weakness in reporting results, performance, and effectiveness.
1997	1997 Report of the Auditor General, Chapter 5, Reporting Performance in the Expenditure Management System We concluded that progress had been made in reporting departmental performance expectations and accomplishments and that these efforts needed to be given time to mature. Nevertheless, progress had been sufficient to allow us to find examples of good practices that, collectively, demonstrate that the key elements of adequate reporting to Parliament can be provided.
2000	2000 Report of the Auditor General, Chapter 19, Reporting Performance to Parliament: Progress Too Slow We recognized that moving to a results-based culture is not easy and takes time. However, we expected to find noticeable progress and were disappointed that only modest improvement had been made. At the present pace, it would take too many years for good reporting to become routine.
2002	April 2002 Report of the Auditor General, Chapter 6, A Model for Rating Departmental Performance Reports We presented our model for rating departmental performance reports and hoped that departments and agencies would use it to improve their performance reports.
2003	2003 Status Report of the Auditor General, Chapter 1, Rating Departmental Performance Reports We used our rating model to rate nine departmental performance reports. We found that progress in improving performance reporting remains disappointing, and that the importance of reporting on horizontal issues was not well recognized.

Criteria for rating departmental performance reports

5.18 Our model for good-quality departmental performance reports encompasses the following five criteria:

- Organizational context and strategic outcomes are clear.
- Performance expectations are clear and concrete.
- Key results are reported against expectations.
- Performance information is credible and balanced.
- Use of performance information is demonstrated.

Exhibit 5.2 Key government performance reporting initiatives

1981	The government committed itself to provide Parliament with improved and expanded information in the Estimates. In particular Part III of the Estimates was designed to provide information to Parliament on departmental spending intentions and about performance and results produced by expenditures previously authorized.
1983	The government agreed to include summaries of program evaluations in Part III.
1995	The government revised the Expenditure Management System. As part of this initiative, it launched the Improved Reporting to Parliament Project, which split Part III of the Estimates into two documents: • Report on Plans and Priorities—tabled in the spring, it sets targets and the general direction; • Performance Report—tabled in the fall, it indicates the results achieved against those planned. Six departments piloted the new approach. The President of the Treasury Board tabled the first government-wide report describing progress made by implementing results-based management in federal departments and agencies. The report is part of the fall performance package and is tabled in Parliament with the departmental performance reports.
1996	Sixteen departments piloted the Improved Reporting to Parliament Project. The Treasury Board President tabled their performance reports in the House of Commons.
1997	On 24 April 1997, the House of Commons passed a motion dividing what was known as the Part III of the Estimates document for each department or agency into two documents, a Report on Plans & Priorities and a Departmental Performance Report. It also required all departments and agencies to table these reports on a pilot basis.
1998	Most departments and agencies submitted reports on plans and priorities and performance reports.
2000	The Treasury Board Secretariat published *Results for Canadians,* which emphasized the importance of ensuring timely and accurate reporting to Parliament.
2001	The Treasury Board Secretariat introduced the Results-Based Management Lexicon. This lexicon provided new, standardized terminology for results management and reporting. The Treasury Board Secretariat published its renewed guidance to departments for the preparation of performance reports and introduced six principles for effective reporting.
2004	The Treasury Board Secretariat replaced the Planning, Reporting, and Accountability Structure Policy with the Management, Resources and Results Structure (MRRS) Policy, effective 1 April 2005. The policy requires that departments have clearly defined and measurable strategic outcomes, an articulated Program Activity Architecture (an inventory of all the programs and activities undertaken by a department or agency that are depicted in their logical relationship to each other and to the strategic outcomes to which they contribute), and a description of the current governance structure. The Treasury Board Secretariat published an integrated Guide for the Preparation of the 2005-2006 Part III of the Estimates: Reports on Plans and Priorities and Departmental Performance Reports. The goal of the integrated guidelines was to reinforce the complementary features of the two documents and their parallel reporting requirements.

5.19 A report that fully meets all five criteria would demonstrate the attributes of excellent reporting. However, the rating model is not designed to provide assurance that information in a performance report is reliable because it does not include an audit of performance information.

5.20 Overall, the five criteria, each of which includes several subcriteria, represent reasonable expectations for a credible performance story about the difference that a department's programs and services are making to Canadians. The first criterion identifies the business the department is in, the second brings forward the commitments made the previous year, and the third presents the accomplishments against those commitments. The other two criteria provide the basis for assessing whether the results reported are believable and how the performance information can be used to produce better results in subsequent years. The model is summarized in Exhibit 1.1 of our May 2003 Chapter, Rating Departmental Performance Reports.

5.21 Our model of what makes a good-quality performance report provides for five levels of achievement—basic, fair, good, very good, and excellent. We anticipate that, as departments learn about what contributes to excellence in reporting and what level they have achieved, they will strive to reach a higher level for each criterion. In this sense, our rating model is also a learning or developmental model.

5.22 However, because some criteria build on other criteria, it may be difficult to achieve a higher level on a later criterion if the level of reporting on an earlier criterion is weak. For example, if performance expectations are not clearly and concretely stated, it will be difficult to report any results against them.

5.23 When a departmental performance report approaches the upper levels on all five criteria, then an auditor might be able to provide written assurance to parliamentarians and Canadians that the report fairly presents the department's accomplishments against its expected results. However, because auditors normally provide assurance on both the fairness and the reliability of information in reports, then additional audit work would have to be done on the reliability of the performance information prior to providing this assurance.

Focus of the audit

5.24 The objective of our audit was to assess departmental performance reporting by assessing the overall quality of departmental performance reports of a small group of departments to determine the extent of progress made in improving the quality of the reports. Specifically, we assessed the progress made over a two-year period, between 2002–03 and 2003–04, compared with the progress made over nearly a decade, between 1995–96 and 2003–04.

5.25 We selected the performance reports of 3 departments—Environment Canada, Fisheries and Oceans Canada, and Natural Resources Canada. These departments were among the 16 pilot departments participating in the Improved Reporting to Parliament Project that started in 1995.

5.26 We chose these departments because they share some common elements. First, many of their programs are oriented toward protecting the environment while also promoting resource utilization. Second, much of their work involves scientific and other activities that do not provide services directly to Canadians but instead contribute to the work of other departments, organizations, or levels of government that have a more direct impact on Canadians.

5.27 In using the rating model developed in 2002, we wanted to have consistent standards for all of our ratings; thus, we applied current expectations for good performance reporting to the reports from all three years (1995–96, 2002–03, and 2003–04).

5.28 We did not audit the role of the Treasury Board Secretariat because the President of the Treasury Board tables the performance reports in Parliament on behalf of departments and agencies. The primary accountability for the performance reports is with departments and agencies.

5.29 More details on the audit's objective, scope, and approach are provided in **About the Audit** at the end of the chapter.

Observations

Progress continues to be disappointing

5.30 We expected to find gradual improvements in the quality of performance reporting from one year to the next, with a clear increase in the quality of the reports over the longer term. However, we found the results to be disappointing.

5.31 As expected, in the three departments' first efforts as participants in the Improved Reporting to Parliament Project, their reports for 1995–96 achieved ratings that ranged from almost the basic level through to levels between fair and good. Our ratings on individual criteria for both the 2002–03 and 2003–04 reports ranged from almost the basic level to between good and very good. However, only one report among the nine reports rated achieved a very good rating on one of the criteria.

5.32 Each of the three departments introduced some promising practices over the past nine reporting years. For example, all three reports of Fisheries and Oceans Canada provide a table that shows a crosswalk of the Department's business lines by the strategic outcomes; this enables readers to see which parts of the organization contribute to each outcome and who is responsible. In both its 2002–03 and 2003–04 reports, Environment Canada offers an opportunity for readers to provide feedback through a questionnaire.

5.33 All three departments told us they made continuous efforts to improve their reporting practices from one year to the next. They also said they worked to satisfy the guidelines, released by the Treasury Board Secretariat each year, for preparing departmental performance reports. For example, in response to Treasury Board Secretariat guidelines, the *2003–04 Performance Report* of Natural Resources Canada provides a summary of its performance that includes key commitments by each strategic outcome together with a self-assessment of how well the Department performed and a reference to the section in the report where supporting information can be found.

5.34 In response to the recommendations outlined in the Sixth Report of the Standing Committee on Government Operations and Estimates in 2003, departments were asked to include a short summary of parliamentary committee reports relevant to their work along with a link or reference to further information. All three departments did this in their 2003–04 reports. This may contribute to a better-informed dialogue between departments and House committees.

5.35 We found that, while parliamentarians would likely be able to readily grasp a department's main business when they read the reports, they would be less likely to clearly see the results of the department's business. For example, through the use of Web links, Fisheries and Oceans Canada makes information available about the state of the fisheries but does not present this information in its performance report. While Natural Resources Canada reports periodically to Parliament on the reserve levels of Canada's most important metals, its performance report only states that the reserve levels of these metals is a concern.

5.36 To some extent, our ratings of the reports of the three departments reflect the complex nature of their business. As noted earlier, the work of these departments may involve the sometimes competing demands of resource utilization and resource protection. Further, much of their business is science-based, and their services to Canadians may be delivered through other organizations. However, while their business may not conveniently lend itself to performance reporting, the three departments told us of their ongoing efforts to improve the quality of their reporting over the past nine years.

5.37 In our assessments of the three departments' performance reports against our rating model, we found that the quality of the reports improved marginally, at most, over the two-year period. Over the nine-year period, we found that two departments achieved some modest improvements while the other department showed mixed results. Although we cannot generalize from the results of rating three reports in each of three years to trends across all government departments, our findings from this audit continue to leave us as concerned about the overall quality of reporting as we were in our previous audits and studies.

5.38 Despite examples of promising practices that demonstrate it is possible for departments to improve on some elements of reporting to Parliament, these promising practices are overshadowed by the disappointing results found when we applied our rating model to the reports. These departments continue to face many challenges in their performance reporting.

5.39 Based on our findings, it is reasonable to suggest that, without greater effort by departments and scrutiny by parliamentary committees, any significant improvements in the quality of performance reporting may take decades rather than just a few years. In our view, this rate of improvement is not good enough for parliamentarians and Canadians to be able to hold departments and agencies to account for their performance.

Organizational context

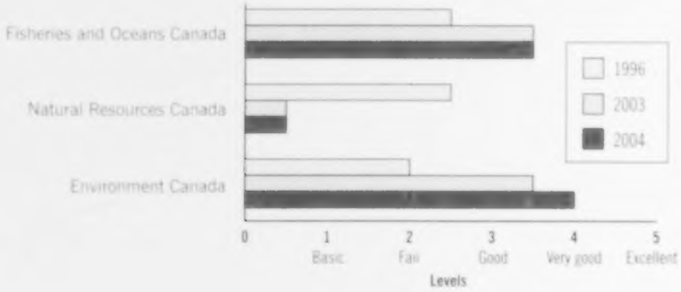
5.40 Our first criterion for good performance reports requires that a department clearly communicate what business it is in and what it does for Canadians. It can do this by ensuring that its organizational context and strategic outcomes are clear and that they reflect the departmental mandate and mission. The criterion expects that reports will clearly communicate how a department's activities are organized, such as through business lines. It also requires a logical sequence from the department's business lines to the key results, which are clearly expressed as planned strategic outcomes. These should take into consideration the department's operating environment. As well, this criterion requires key external partners to be identified and a credible description of the risks the department faces to be provided.

5.41 We expected that each report would provide a meaningful performance story of the department's work by placing it in this broader context. We also expected that the quality of these performance stories and the descriptions of their operating environment would have improved over the nine-year period.

A good overview of the organizational context is generally provided

5.42 The reports generally achieved higher ratings on this criterion than the other four criteria in our rating model. Overall, for all the reports we rated, reporting for this criterion ranged from almost basic to between good and very good, with one report achieving a very good rating (Exhibit 5.3). Over the two-year period, the quality of reporting remained consistent for two departments but improved for the third. Over the nine-year period, two of the departments improved on this criterion, while the third department declined. Notably, Environment Canada's reports improved over both periods.

Exhibit 5.3 Organizational context and strategic outcomes are clear—assessment summary



Some departments have adopted promising practices

5.43 In both 2002–03 and 2003–04, the reports of Fisheries and Oceans Canada and Environment Canada provided good descriptions of their operating environments. They also provided accountability structures and identified key partners. Both departments provided Web links in their reports so that readers can get more information about their partners. This approach helps to keep the reports focussed on performance. Fisheries and Oceans Canada also reported on the risks that influence the Department in achieving its strategic outcomes.

Some challenges remain

5.44 A performance report should state the department's main business by providing its mission and mandate. This information tells readers what the organization's purpose is and provides reference to the legislation that makes it possible for the organization to do its work. In both 2002–03 and 2003–04, the performance reports of Natural Resources Canada did not provide the Department's mission and mandate, while the Department's report on plans and priorities for the corresponding years provided the mandate. The rating for these performance reports could easily be improved against our model by including both the Department's mission and mandate.

5.45 The reports of all three departments could be improved by providing a discussion on how their strategic outcomes contribute to relevant government priorities. As well, they should discuss any challenges faced in balancing the departments' own work with their contributions to joint work with other departments.

Performance expectations

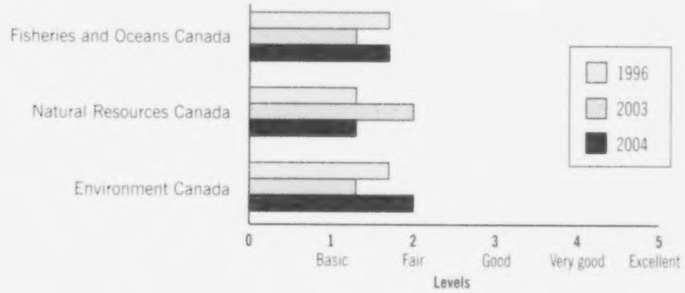
5.46 Our second criterion expects performance expectations to be clear and concrete. More precisely, departments should clearly state their commitments to Canadians. These commitments or performance expectations are initially provided in a department's report on plans and priorities and should be clearly identified and aligned with federal government priorities. The expectations are then carried over into the ensuing performance report. As well, performance expectations should be expressed as outputs or outcomes. They should also specify the direction of planned changes—for example, whether certain outputs or outcomes will be increased, maintained, or decreased as a result of the department's program activities. Finally, the time frame in which those changes will be made should be specified.

5.47 We expected departments to state their expectations in a clear and precise way, accompanied by sufficient information to clearly show how the departments' activities and strategies would meet these expectations. We also expected the quality of these statements to have improved over the nine-year period by increasingly being expressed as outputs and outcomes, rather than just as activities.

Performance expectations are not always clear and concrete

5.48 Overall, for all the reports we rated, reporting for this criterion ranged from basic to fair on our model (Exhibit 5.4). Over the two-year period, two of the departments achieved a higher rating in 2003–04 than in 2002–03. Over the nine-year period, one department improved, and two showed no change.

Exhibit 5.4 Performance expectations are clear and concrete—assessment summary



Use of results chains improves reporting

5.49 In 2002–03 and 2003–04, Fisheries and Oceans Canada's reports presented good results chains or logic models that summarize at a glance the Department's performance expectations, partnerships, business lines, and activities. Environment Canada's *2003–04 Performance Report* provided a logic model for each business line that also outlines the Department's performance expectations in terms of immediate and intermediate outcomes.

Improvements are needed

5.50 Despite being rated from basic to fair on our rating model, some key performance expectations presented in the reports of all three departments were inconsistent with the expectations presented in their planning reports. These changes to the performance expectations were not explained in the performance report.

5.51 The reports could be significantly improved if performance expectations were expressed as outputs and outcomes, with each commitment having a clearly-stated direction, amount, and time frame. We would also like to see a description of the strategies to be used for producing better results in subsequent years.

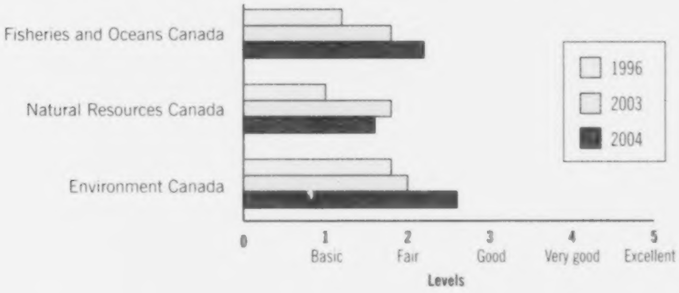
Key results reported against expectations

5.52 The third criterion of our model requires key results to be reported against performance expectations. This criterion expects results to be presented as outputs or outcomes. It also expects reports to state whether the department achieved its commitments and to explain any gaps in performance. This includes aligning outputs and outcomes with performance expectations, addressing the challenges of achieving expected results, identifying the partners that contributed to the performance outcomes, determining the level of resources required, and interpreting the results. We believe that this criterion is at the very core of good performance reporting.

Outputs and outcomes are not widely reported

5.53 Overall, for all the reports we rated, reporting for this criterion ranged from basic to fair, with only one report approaching a good level of reporting (Exhibit 5.5). The results reported tended to focus largely on activities rather than on the outputs produced and on the outcomes to which they contribute. According to our rating model, over the two-year period two departments marginally improved their reporting, and the same two departments improved by up to one level over the nine-year period. Given the government's emphasis on results-based management over the past decade, we expected to see greater improvement on this criterion.

Exhibit 5.5 Key results are reported against expectations—assessment summary



Some promising practices are provided

5.54 Despite finding some limited improvements on this criterion, some promising practices are provided. In 2003–04, while all three departments' reports made some reference to evaluations and internal audits, only Natural Resources Canada integrated the findings of an evaluation with its reporting of departmental results. All three departments also provided an estimate of the level of resources used to achieve each strategic outcome.

5.55 The 2002–03 report from Environment Canada provided an Internet link to a table that displayed the Department's expectations and how well it has performed against them. However, this table would be more useful if it were shorter and included in the performance report itself.

Challenges remain

5.56 The performance reports could be improved by systematically integrating the findings from evaluations and audits in discussions of the results. Estimates of the resources used to achieve concrete targets should also be provided. The gap between the planned results and the actual results should be explained. As well, information should be provided so that results achieved can be interpreted, such as trends over the past five years or comparisons with other departments.

Credible and balanced results

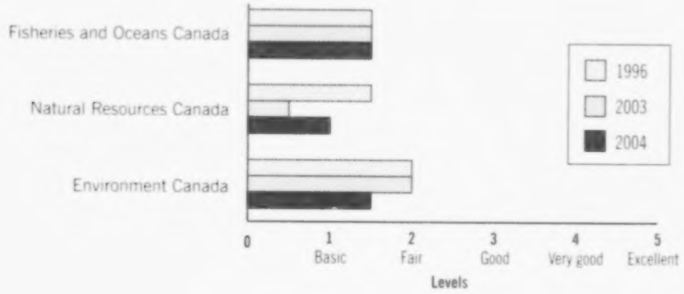
5.57 Our fourth criterion requires performance information to be credible and balanced. First, it focusses on the quality of performance information and the reliability of information sources as the basis for judging the credibility of the data. Second, it focusses on whether the reporting of good results is balanced with the reporting of shortcomings and whether the level of detail for key results is appropriate. This criterion is fundamental to a compelling and credible performance report.

5.58 We expected to find evidence to show that the information was credible. We also expected that results falling short of expectations would be reported along with the success stories. Further, we expected that the amount of information provided for the key results would be proportional to their importance.

Departments do not generally report credible and balanced results

5.59 Overall, for all the reports we rated, reporting for this criterion ranged from almost basic to fair (Exhibit 5.6). Over the two-year period, one department improved on this criterion, one showed no change, and one declined. There was no improvement on this criterion over the nine-year period for any of the departments, and we could not find any promising practices.

Exhibit 5.6 Performance information is credible and balanced—assessment summary



Many challenges remain

5.60 The reports could be improved by reporting data sources and limitations. They should also provide a discussion on how to interpret their performance information, including the relevance or importance of the performance achieved. It is important to report performance shortcomings as well as successes; this would reduce the risk that users, such as parliamentarians, might discount the positive results as biased, incomplete, and lacking in credibility.

Use of performance information

5.61 Managing well to improve results is a challenge. The previous four criteria are based on a more traditional approach to assessing performance reporting. For these criteria, the organizational context must be provided; the performance should be defined, measured, and reported against expectations; and the information must be credible and balanced. However, even if all these criteria have been met, if feedback on past performance is not used to improve future results, then the use of the report may be restricted to addressing the external accountability requirement of reporting to Parliament.

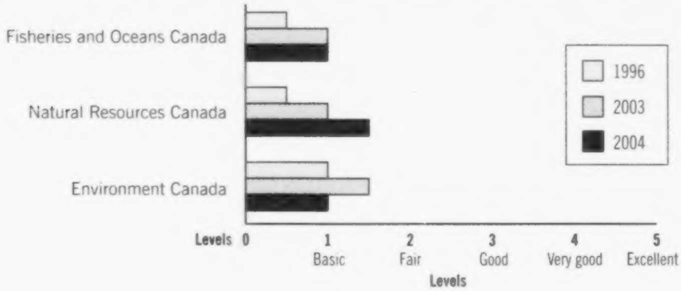
5.62 Performance information is not collected just to create accountability reports; it should also be used to help departments make sound internal decisions to manage for better results. For example, when evaluations of programs provide evidence about which programs work well and which ones do not, then funding could be redirected away from programs that have been shown not to work well to those that do work well. In addition, the performance report should provide a credible discussion about the capacity of a department to produce sustainable results by continuing to perform well in the future. A good-quality report also highlights lessons learned and identifies how weak performance will be corrected in future years.

5.63 We expected that performance reports would demonstrate ways in which departmental management is using performance information, including how it will use the information to establish future performance expectations and improve future performance.

Performance information is seldom used

5.64 Overall, for all of the reports we rated, reporting for this criterion ranged from almost basic to between basic and fair, with most reports achieving only a basic rating (Exhibit 5.7). According to our rating model, over the two-year period one department improved, one showed no change, and one declined. Over the nine-year period, two departments improved on this criterion, while the report of the third department remained the same.

Exhibit 5.7 Use of performance information is demonstrated—assessment summary



Use of performance information in decision making improves reports

5.65 In 2003–04, Natural Resources Canada reported how it used the results provided by an evaluation about road surfaces and the fuel efficiency of vehicles. Based on this information, resources previously devoted to research on concrete roads were redirected to research on other road materials. We consider this a promising practice because it illustrates how the Department used performance information to potentially improve future performance.

Future performance needs to be discussed

5.66 The reports could be improved by including both explanations of corrective action taken to address performance issues and plans to improve performance. Reports should also discuss the risks associated with continuing to either meet or make progress on performance targets in the future. The ratings on this criterion suggest that this could be one of the most challenging aspects of performance reporting. In facing this challenge, departments will need to incorporate good performance information into their decision-making processes, evaluate whether they are heading in the right direction, and use the information to correct problems.

Conclusion

5.67 This is the second time that we have used our model to rate a selection of performance reports. However, it is the first time we have compared a department's reports over one or more periods to assess progress in improving the quality of reporting. Overall, we found that progress in improving performance reporting to Parliament continues to be a challenge for the three departments, even after almost a decade of effort.

5.68 We found that, between 1995–96 and 2003–04, two departments at least doubled the number of pages in their performance reports. We are not convinced that the greater length has translated into a proportional increase in the quality of the reports. Some of the greater length can be attributed to additional requirements from the Treasury Board Secretariat and the trend toward greater complexity of the information. However, some of the increased length is a reflection of more information being reported than is necessary and information being too detailed for the intended readers. While the 1995–96 reports were handicapped by focussing largely on activities rather than on outputs and outcomes, their performance stories were more succinct and, therefore, more understandable.

5.69 The findings from this audit are consistent with our observations from our previous work. In 1988, we concluded that reports to Parliament did not provide a fully satisfactory basis for accountability. In 1992, we again indicated that these reports did not provide the necessary breadth of information. In 1997, when the government reviewed its Expenditure Management System, we stated that progress in performance reporting to Parliament was being made. In our 2000 Report, Chapter 19, Reporting

Performance to Parliament: Progress Too Slow, we concluded, "At the current rate of progress, it will be many years before good performance reporting becomes routine." In 2003, when we rated nine reports, we found that progress in performance reporting remains disappointing.

5.70 In our previous work, we listed five factors that contribute to the quality of performance reporting. We believe these are still valid.

5.71 First, the basic principles of good reporting are frequently not well understood or applied by departments. This remains a factor, despite the Treasury Board Secretariat's annual guidelines that reinforce the principles of good reporting.

5.72 Second, performance reporting takes place in a political environment. This continues to be a factor because the value of reporting shortcomings has not yet been widely accepted. Balanced reporting, that is, admitting to shortcomings as well as successes, is apparently not yet part of the management culture of government.

5.73 Third, there are no incentives for good reporting practices or sanctions applied for poor reporting. Because House committees do not control departmental budgets, as their counterparts do in some other jurisdictions, it is more difficult for parliamentarians to encourage good reporting or penalize poor reporting through the use of financial measures. As well, some jurisdictions scrutinize performance reports and name the poorly-performing departments as a way of motivating them to improve their reports.

5.74 Fourth, many departments do not consider performance reports to be a high priority. Often, the reports do not get the involvement or attention of senior departmental management that they should. This may be because information in performance reports is neither used by departments to manage for results nor used by the government to manage government-wide initiatives.

5.75 Fifth, despite initiatives of Parliament and the government aimed at improving the quality of performance reports over the past few decades, in our view parliamentary committees have not taken advantage of the reports in their discussions with the departments audited. Greater interest in and scrutiny of the reports by parliamentary committees would encourage departments to improve the quality of their performance reports.

5.76 These factors cannot be overcome easily. They can only be addressed by fundamentally changing the management culture of government. Consequently, we are not making any formal recommendations to departments because our message continues to be that they should make a greater effort to better understand the basic principles of good reporting and they should continue to work on improving their performance reports. While the onus is on departments to improve these reports, the Treasury Board Secretariat should also continue to help departments by reviewing their performance reports and providing leadership and opportunities to increase their understanding and acceptance of the principles and practices of good performance reporting.

5.77 Parliamentary review of performance reports through the various standing committees is essential for improving the quality of performance reports. Committees could demand clarification and explanations of departmental results. They could then challenge departments and agencies on how well they have performed against their commitments to Canadians. Only when parliamentarians are engaged with departments in an ongoing dialogue about departmental performance will the quality of these reports improve.

Government's response. We welcome the efforts of the Auditor General in assessing departmental performance reports and in providing advice on areas that need improvement. The Government of Canada remains strongly committed to ongoing improvements in reporting to Parliament, recognizing that sound, transparent, and effective reporting is key to supporting Parliament in its role of holding the government to account for the management and use of public funds.

Reports on plans and priorities and departmental performance reports are primary instruments of accountability to Parliament. They are a mechanism through which ministers and their organizations demonstrate responsibility and accountability. These reports explain to Parliament their departmental plans, priorities, and expected results, and account for the performance achieved. In collaboration with departments, the Treasury Board Secretariat (TBS) has recently revised its departmental guidelines and reinforced the results-based focus of these reporting instruments. The TBS will continue to work with departments, parliamentarians, and the Auditor General to help improve practices highlighted in the Report.

In December 2004, the Treasury Board Secretariat introduced the Management, Resources and Results Structure (MRRS) Policy. It will provide a standard, government-wide approach to planning and reporting on resource expenditures and results. To ensure better quality of performance reporting, the TBS will provide assistance and guidance to departments as they develop and adjust their management, resources, and results structures. This is a major shift in planning and performance reporting practices and will require a phased-in approach to full implementation. We expect that the MRRS policy will serve as a consistent and enduring foundation for financial and non-financial reporting to Parliament.

In the coming months, the government, in collaboration with parliamentarians, will develop a blueprint for improved reporting to Parliament that will better respond to needs of parliamentarians and other stakeholders for transparent, timely, and easy-to-understand performance information. The government will also invest in technological systems that support performance data and reporting. Combined, these efforts should bring about a gradual shift in the management culture and in performance reporting practices across government departments.

We welcome the opportunities for continued collaboration with the Auditor General, parliamentarians, departments, and others to enable the required shift toward improved performance reporting and management practices.

About the Audit

Objective

The objective of this audit was to assess departmental performance reporting by assessing the overall quality of departmental performance reports of a small group of departments to determine the extent of progress made in improving the quality of the reports. Specifically, we assessed the progress made over a two-year period, between 2002–03 and 2003–04, compared with the progress made over nearly a decade, between 1995–96 and 2003–04.

Scope

We selected the performance reports of three departments—Environment Canada, Fisheries and Oceans Canada, and Natural Resources Canada. These departments were among the second round of pilot departments participating on the Improved Reporting to Parliament Project, which provided for the splitting of the Estimates Part III into planning and reporting documents.

We did not audit the Treasury Board Secretariat.

Approach

We assessed three performance reports from each of three departments against our rating model. These reports covered the period ending 31 March 1996, 31 March 2003, and 31 March 2004. We followed the approach that we described in our April 2002 Report, Chapter 6, A Model for Rating Departmental Performance Reports, and applied to nine departmental performance reports in our May 2003 Report, Chapter 1, Rating Departmental Performance Reports.

In the rating model, each of the five criteria is represented by a continuum that has five levels or stages of development. These are basic, fair, good, very good, and excellent. An exceptional performance report would achieve an excellent rating in each criterion.

Three raters (two from separate teams within our Office and another from outside the Office) applied the rating model to the performance reports to produce their rating. They then discussed their ratings to arrive at a consensus rating.

Although we used the rating model developed in 2002, we applied current expectations for good performance reporting to the reports from all three years (1995–96, 2002–03, and 2003–04).

We did not audit the departments' systems and procedures for producing the information included in their reports or reach a conclusion on the reliability of the performance information contained in the reports.

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Report of the Auditor General of Canada to the House of Commons—April 2005

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2005

Report of the

Auditor General of Canada

to the House of Commons

APRIL

Chapter 6

Indian and Northern Affairs Canada—Development of Non-Renewable Resources in the Northwest Territories

Office of the Auditor General of Canada

The April 2005 Report of the Auditor General of Canada comprises six chapters, and a Message From the Auditor General of Canada and Main Points. The main table of contents is found at the end of this publication.

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Chapter

6

Indian and Northern Affairs Canada

Development of Non-Renewable Resources in the Northwest Territories

All of the audit work in this chapter was conducted in accordance with the standards for assurance engagements set by the Canadian Institute of Chartered Accountants. While the Office adopts these standards as the minimum requirement for our audits, we also draw upon the standards and practices of other disciplines.

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Indian and Northern Affairs Canada
Development of Non-Renewable Resources in the Northwest Territories

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Main Points

6.1 Non-renewable resources offer enormous potential for economic development in the Northwest Territories (NWT). Yet the investment climate for this development is uncertain, in part because Indian and Northern Affairs Canada has not adequately managed its role in the process that considers development projects.

6.2 This includes not providing guidance on some of the ambiguous terms in the governing legislation or on establishing water standards permitted by legislation. It also includes not requiring boards to be accountable for managing their role in the process without impinging on the decisions they take as quasi-judicial bodies.

Background and other observations

6.3 Our audit examined how well Indian and Northern Affairs Canada (INAC) has managed its responsibilities that form part of the application and licensing process for the development of non-renewable resources in the Northwest Territories.

6.4 With the signing of land claim agreements in the Northwest Territories and the passage of the *Mackenzie Valley Resource Management Act* (MVRMA), the federal government created a series of boards to regulate the use of land and water and protect the environment. When these boards were created, the Department felt that the federal government's best course of action was to leave the boards to administer the process on their own in order to ensure that the Aboriginal peoples of the NWT understood that the federal government was sincere in relinquishing control. That decision seven years ago has contributed to a regulatory environment that, today, needs strengthening.

6.5 As the federal government continues negotiating the transfer of responsibilities to the Northwest Territories, it is important for Canadians that the process for developing non-renewable resources that the NWT may inherit is well managed.

6.6 Furthermore, seven years since the passage of the Act, it is timely for the Department to re-examine its approach to managing the process and strengthen it in the areas described in this report to ensure that it is sufficiently robust to meet the challenges and realize the opportunities of the coming decade.

The Department has responded. Indian and Northern Affairs Canada agrees with all the recommendations and has committed to taking action to address the concerns we raise in this chapter.

Introduction

Historical overview of non-renewable resources in the North

6.7 The development of non-renewable resources is vital to the economic development of Canada's North. In the Northwest Territories (NWT), this means the development of, primarily, minerals and natural gas.

6.8 While the discovery of metals goes back to the 18th century, modern mining began with the Yukon gold rush in the late 1800s. Oil was later found at Norman Wells, NWT, in 1918. Fifty years later, gas was discovered in the Mackenzie-Beaufort Delta; however, it has remained inaccessible to North American markets because there has been no way to bring it south. Today, 30 years later, a new application has been made to build a pipeline.

6.9 On the mining side, in addition to gold, lead and zinc are the two metals most commonly extracted in the NWT. But diamonds represent the new mining frontier.

6.10 In 2003, the gross domestic product of the Northwest Territories was $3,332 million, about 13 percent higher than the year before. Since 2000, about two years after miners extracted the first diamonds, the NWT economy has grown annually by about 10 percent. In the same period, the share of the economy represented by mining (excluding gas and oil) grew from just under 24 percent to about 42 percent, and the size of the mining industry more than doubled. The industry will get another boost once a third diamond mine is up and running, expected in 2006. The other potential impetus to the NWT economy is natural gas in the Arctic, which will depend on the construction of the proposed Mackenzie Valley pipeline.

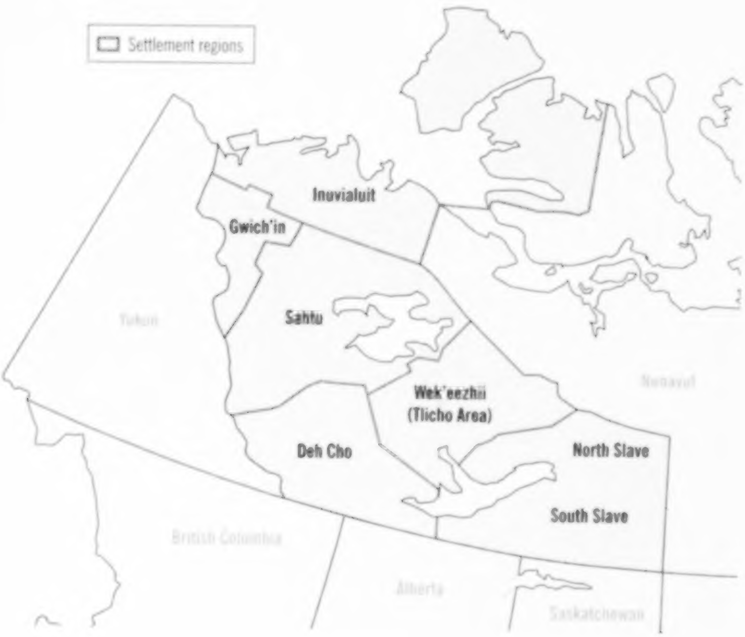
An evolving regulatory framework for developing resources

6.11 The environmental consequences of resource development have been a matter of growing concern in Canada since the late 1960s. With the federal government's commitment in 1974 to review the environmental effects of federal decisions throughout Canada, all development projects on federal lands or in areas under federal jurisdiction became subject to screening to ensure the least possible damage to the environment. In 1984, the Environmental Assessment and Review Process Guidelines Order codified what had been a largely unwritten process arising from the 1974 Cabinet policy.

6.12 In 1995, the *Canadian Environmental Assessment Act* (CEAA) replaced the Order and became the basis for conducting environmental assessments in areas of federal jurisdiction.

6.13 The devolution of federal responsibilities to the territorial governments and the existence of Aboriginal land claim settlements have made environmental assessments in the North more complex. On 1 April 2003, the Government of Yukon took over the management of its non-renewable resources, except in areas where transboundary development is proposed. However, environmental assessment responsibilities will remain under federal authority, but with significant participation from the Yukon First Nations. In Nunavut, the land claim settlement established a process for issuing land use permits and water licences as well as a process for dealing with environmental concerns. In the NWT, except in the Inuvialuit land claim area, environmental considerations and the issuing of licences and permits fall under the 1998 *Mackenzie Valley Resource Management Act* (MVRMA) and the Sahtu and Gwich'in land claims legislation (Exhibit 6.1). As other claims are settled, such as the Tlicho claim, where the ratifying legislation is before Parliament, and the Deh Cho claim, which is currently being negotiated, the MVRMA will be amended to incorporate them into the process.

Exhibit 6.1 Aboriginal settlement areas in the Northwest Territories



6.14 The MVRMA was created to meet a federal obligation under the Sahtu and Gwich'in land claim agreements and implementing legislation. It called for the creation of public boards to manage the application process for the development of renewable and non-renewable resources in the Mackenzie Valley.

Parties involved in resource development

6.15 The application for non-renewable resources development begins when a developer applies to a MVRMA-created board for a land use permit and/or water licence (there are two types of water licence—Type A and Type B; Type A is for larger and/or more complex projects). Once an application is received, several organizations become involved.

6.16 **Minister for Indian and Northern Affairs.** The MVRMA assigns to the Minister several responsibilities for resource management in the Mackenzie Valley. These include operational and governance responsibilities. At the operational level, responsibilities include

- adopting, with or without modifications, or rejecting recommendations of the Mackenzie Valley Environmental Impact Review Board; and
- approving Type A water licences issued by the land and water boards.

6.17 At the governance level, section 82 of the MVRMA sets out the principal responsibility of the Minister for Indian and Northern Affairs in relation to land and water regulation; it gives the minister the authority, after consultation with a board, to give written policy directions binding on that board regarding its responsibilities for land and water regulation. Other responsibilities include

- making regulations about water quality, after consultation with the Mackenzie Valley Land and Water Board;
- appointing board members where, except for the chair, half are selected from First Nation nominations and the other half from government nominations;
- appointing the board chairs; and
- specifying the form of the annual report that the boards must submit to the Minister.

6.18 **Gwich'in, Sahtu, and Mackenzie Valley land and water boards.** These federally created boards are responsible for regulating the use of land and water and the deposit of waste in the Mackenzie Valley, for the benefit of NWT residents and all Canadians. The boards receive applications for the land permits and/or water licences needed before such projects can proceed. If a project is limited to Gwich'in or Sahtu land, the board for the region in question manages the application process. If the project crosses boundaries or is on land not covered by a settled land claim, the Mackenzie Valley Land and Water Board is responsible.

6.19 **Gwich'in and Sahtu land use planning boards.** Created by the federal government in 1998, these boards are responsible for preparing land use plans and overseeing land use in the Gwich'in and Sahtu settlement areas. When a developer submits an application for development on Gwich'in or Sahtu land, the proposal is forwarded to the planning board for the region in question to ensure that the application complies with the land use plan for the area.

6.20 **Parties affected by the development proposal.** Before the land and water board can proceed with an application, it must notify any organization or individual affected by the proposal. This could include any number of federal and territorial organizations and local governments, as well as organizations associated with the Gwich'in, Sahtu, or Tlicho land claims.

6.21 **Mackenzie Valley Environmental Impact Review Board (MVEIRB).** The federal government created this board in 1998 to conduct environmental assessments and reviews of resource development applications referred to it by other boards and organizations or on its own motion.

Process for approving resource development applications

6.22 The steps in the approval or rejection of an application for a permit or licence are set out in the *Mackenzie Valley Resource Management Act*.

6.23 **The boards are key to making the process work.** This process involves four boards: the Mackenzie Valley Land and Water Board; its two panels, the Gwich'in Land and Water Board and the Sahtu Land and Water Board; and the Mackenzie Valley Environmental Impact Review Board.

6.24 In the past, Indian and Northern Affairs Canada and the Northwest Territories Water Board had primary authority over resource development. With the Inuvialuit land claim agreement in 1984, the Sahtu and Gwich'in land claim agreements in the early 1990s, and the passage of the MVRMA, the creation of a number of boards in the Northwest Territories changed the Department's role by introducing a new way of managing resource development in the NWT. The federal government no longer directly controlled the issuing of permits and licences for land and water use. Nor was it responsible for assessing the potential environmental impacts of development. This meant that the First Nations and Inuvialuit obtained what they had been seeking for some time: participation in regulating the use of resources on their lands, with the boards being the vehicle for that participation.

6.25 The boards have become the filter through which must pass every application for resource development that requires a land use permit or water licence. There are no exceptions; the Minister cannot bypass the process unilaterally or intervene before the process has run its course and reports have been issued.

6.26 **Timelines are established.** At the beginning of the process, a board will formally acknowledge that it has received an application only when it is satisfied that the application is complete. This acknowledgement establishes the period within which the applicant can expect a response, ranging from 42 days for a land use permit to up to 90 days for a water licence, unless the application is referred to the MVEIRB for an environmental assessment.

6.27 **Applications must conform to land use plans.** Land use plans provide for the conservation; development; and use of land, water, and resources in an area covered by a settled land claim. Once an application is complete, the board will check whether it conforms to the land use plan that applies; if it does not, and cannot be amended, it is rejected.

6.28 **Applications must go through a preliminary screening.** The first stage in the review of a complete application is a preliminary screening by the appropriate land and water board or any other regulatory authority that has a power to issue a license or permit. If any of these bodies determines that the proposed project "might have a significant impact on the environment or might be a cause for public concern," it refers the application to the MVEIRB for an environmental assessment.

6.29 The land and water boards must send the application to various expert reviewers for their comments on the likelihood of environmental impact and public concern. These reviewers include various departments and agencies of both the federal government and the Government of the Northwest Territories, as well as the First Nation communities affected.

6.30 If the proposed development is unlikely to cause a significant public concern or adverse environmental impact, either the Gwich'in, Sahtu, or Mackenzie Valley land and water boards decides whether the licence or permit should be issued and establishes the terms of the licence.

6.31 **The Mackenzie Valley Environmental Impact Review Board manages the environmental assessment process.** When any one of the preliminary screening bodies identified by the MVRMA believes that a proposed development outside of a local government boundary might cause a significant adverse impact on the environment or might be a cause of public concern, the Review Board is required to do an environmental assessment even without a referral from a land and water board. If the proposed development is inside a local government boundary, the condition for conducting an environmental assessment changes from "might" to will "likely" cause a significant adverse impact on the environment. The Review Board can also decide on its own to conduct an environmental assessment.

6.32 On completing an environmental assessment, the Review Board will determine whether, in its opinion, the project is likely to have a significant adverse impact on the environment or to be the cause of significant public concern. If the Board finds that a project does not give rise to one of these conditions, then it can determine that no further review need be done. If it finds that the proposal does meet one of these conditions, it can order a more extensive environmental impact review. It can also recommend approval, subject to sufficient mitigating conditions, or it can recommend that the Minister reject the proposal without any further review.

6.33 The course of action open to the Minister upon receiving a report from the Review Board is limited. He or she can adopt the recommendations, refer them back to the Board for further consideration, reject them, or after consulting the Board, adopt the recommendation with modifications. The Minister cannot modify the recommendations without consulting the Board.

Focus of the audit

6.34 Our audit examined how well Indian and Northern Affairs Canada is managing its responsibilities for the process set out in the *Mackenzie Valley Resource Management Act* for the development of non-renewable resources in the Northwest Territories (apart from the Inuvialuit Settlement Region). We looked at the process from the point at which one of the regulatory and environmental assessment boards receives an application for a permit and/or licence until a decision by one of those boards is made.

6.35 We did not audit any of the boards' responsibilities for their practices, procedures, or internal administration; nor did we examine the roles that other federal departments and agencies play in the process. However, we did interview officials from the boards to understand how the Department is managing its responsibilities.

6.36 Further details on our audit objectives, scope, approach, and criteria are presented in **About the Audit** at the end of the chapter.

Observations and Recommendations

Governance of resource development

A reduced operational role for the Department in regulating development

6.37 With the signing of land claims, the creation of the boards, and the passage of the *Mackenzie Valley Resource Management Act* (MVRMA), the federal government effectively transferred part of its existing responsibilities for managing the development of non-renewable resources—regulating the use of land and water and examining the environmental impacts of non-renewable development proposals—to several boards in the Northwest Territories. Those boards are the Mackenzie Valley Land and Water Board; its two panels, the Gwich'in Land and Water Board and the Sahtu Land and Water Board; and the Mackenzie Valley Environmental Impact Review Board.

6.38 The Act provides an overall framework for that process that includes a series of discrete steps. All the parties we spoke to understood the framework, the steps in the process, and the decisions that must be made at each of the points.

6.39 Having transferred this regulatory authority to the boards, the Department retained several responsibilities that need to be managed well if the process is to work as intended. It maintained those responsibilities because it recognized that the investment climate in the Northwest Territories (NWT) could be influenced by how well the process worked. Accordingly, we looked at how the federal government is managing its responsibilities associated with the process for the development of non-renewable resources in the NWT.

6.40 In managing those responsibilities, we expected the Department to have provided adequate direction to ensure that the details to make the process run smoothly were in place. We also expected the Department to have determined that the boards had the required resources, both financial and non-financial, to carry out their functions. Finally, we expected the Department to have managed its responsibilities and authorities in a way that demonstrated that the roles, capacities, and accountabilities of those involved in the process are clear and fulfilled.

The Department needs to take a more active role to fulfill its responsibilities

6.41 While Indian and Northern Affairs has transferred some of its operational responsibilities for resource development in the Northwest Territories, it continues its governance role in several areas. Through the audit, we identified four areas where the decision the Department took some seven years ago regarding its scale of its involvement needs revisiting. These include

- providing guidance on key terms in the legislation,
- establishing regulations for water quality,
- ensuring the boards have the necessary resources to carry out their functions, and
- requiring the boards to be accountable not only for financial performance but also for the way in which they manage their responsibilities for the process.

6.42 According to Indian and Northern Affairs officials, the Department decided to keep its involvement to a minimum given the need to assure Aboriginal peoples of the NWT that the federal government was sincere in relinquishing control. Seven years later, that decision has resulted in ambiguity surrounding the regulation of non-renewable resources, which has raised the uncertainty that the process will be applied consistently. It would seem timely today for the Department to address the issues we raise to help ensure that the process is sufficiently robust to meet the challenges and to realize the opportunities of the coming decade.

Guidance on key terms in the legislation needs to be provided

6.43 Under the *Mackenzie Valley Resource Management Act*, a land and water board or any regulatory authority must conclude at the preliminary screening of a proposal whether it "might have a significant impact on the environment or might be a cause for public concern." If the authority believes the proposal might have a significant impact, it will refer the application to the Mackenzie Valley Environmental Review Board for an environmental assessment.

6.44 Interested parties we interviewed indicated that before submitting an application or registering a matter that could cause public concern, they should be entitled to guidance on how key terms such as "might have a significant impact on the environment" or "may be a cause for public concern" are to be interpreted. In this regard, the Department has given the land and water boards no such guidance, nor do applicants for permits receive any direction on how the land and water boards might interpret the terms. Yet, in other similar legislation such as the *Canadian Environmental Assessment Act*, Environment Canada has issued draft guidelines that are being used for assessing the role of public participation in similar processes under its jurisdiction.

6.45 In 2004, the Review Board issued guidance on how the word "might" could be applied in practice, and there are several environmental publications that provide direction on interpreting the word "significant." But the boards, or any party in a similar position, are not required to use this guidance or any particular interpretation.

6.46 Consequently, any of the land and water boards or any regulatory authority can require the Review Board to conduct an environmental assessment without having to be accountable for that decision. Environmental assessments, which by their nature take time and increase costs, are an important component in the regulatory process and should only be used when justified.

6.47 **Recommendation.** Indian and Northern Affairs Canada, in consultation with the boards under the *Mackenzie Valley Resource Management Act*, should develop guidelines for clarifying key terms in the legislation.

Department's response. The Department, with the boards throughout the Northwest Territories (NWT), has developed a process known as the NWT Board Forum. Through this forum, the Department will work with the boards to develop guidelines to clarify key terms of the legislation. These will be based on the precedent work already completed through the *Canadian Environmental Assessment Act*. A working draft for external consultation will be completed by 1 April 2006.

Regulations for water should be established

6.48 When the land and water boards issue water licences under the authority of the *Northwest Territories Waters Act* and the MVRMA, they require the licensees to meet certain conditions such as measures to mitigate the environmental impacts of the use of water or the deposit of waste. Applicants for licences or permits should be able to know before they submit their proposals the standards for water use and waste disposal that they must meet. In that way, they would be able to demonstrate in their project plans how they will meet those standards.

6.49 In fact, the *Northwest Territories Waters Act* provides for the Minister for Indian and Northern Affairs, working with the boards, to make regulations governing the quality of water. Similarly, the MVRMA gives the Minister the authority to provide written policy directions regarding land and water regulations.

6.50 However, the Department has chosen not to exercise these authorities. Consequently, when completing an application for a water licence, applicants do not know whether they are to meet an international standard of water quality, a national or territorial standard, a standard specific to the development site's environment, or the highest standard established by science.

6.51 This absence of direction on standards for water can raise the risk of confusion and uncertainty over the stringency of the requirements that applicants are to meet in order to have their applications approved.

6.52 **Recommendation.** Indian and Northern Affairs Canada, in consultation with the boards under the *Mackenzie Valley Resource Management*

Act, should develop standards for water and the Minister should direct the boards to use the standards.

Department's response. In consultation with the boards and water users, the Department will ascertain the information needs (with respect to water standards used by the boards to set licence terms and conditions) of water users and the best form to provide proponents with certainty. A report on information needs will be completed by the end of 2006.

In consultation with the boards, the Department will develop water standards and set them out in codes, guidelines, policy, or regulations, as best fits the need. A completion date will be determined as part of the consultation.

The Department will improve the system for notification to the boards of various standards. This will be an ongoing process.

The Department needs to establish an effective process to ensure that the boards have the appropriate resources

6.53 The land and water boards are to conduct their business at arm's length from government and the First Nations that nominate them. Their business includes deciding on the use of land and water and protecting the environment. The business of the Mackenzie Valley Environmental Impact Review Board also includes recommending the approval of projects, subject to taking measures to mitigate significant adverse environmental impacts.

6.54 It is important that the boards have the resources to carry out their functions, because their decisions and recommendations, once the Minister has accepted them, are binding. There is no appeal except to the courts. Given the significant consequences of the boards' decisions, we expected the Department to have made every effort to ensure that the boards had the resources to make informed decisions. Such resources are not only financial but also include appropriate guidance to ensure that the boards are well versed in the most appropriate techniques and approaches needed to carry out their tasks. They also include the kind of policy directives discussed earlier and clear direction on their roles and responsibilities. However, we saw no evidence that the Department carried out this responsibility.

6.55 The lack of clarity in the roles and responsibilities is evident in a letter the Minister wrote the Review Board to question the relevance of some of its recommendations and to indicate the need to define roles and responsibilities as well as a process for consultation on future projects. He wrote that in all future environmental assessments, the Review Board should explain how each recommendation would prevent the environmental impacts identified in the assessment.

6.56 When the boards were created, the federal government left them to determine how they would conduct their business. It provided no systematic orientation programs for board members and staff so they would understand, for example, the powers and procedures of federal boards with administrative tribunal responsibilities, the responsibility of federal boards to comply with federal requirements such as contracting policies, the various laws that govern resource management in the NWT, and the extent of board members' responsibilities. Currently, the Minister's letter of offer to newly appointed board members says nothing about their responsibilities and duties as board members; it comments only on the requirement to comply with a code of conduct.

6.57 We noted that the September 2004 report to the government by the External Advisory Committee on Smart Regulation, Smart Regulation: A Regulatory Strategy for Canada, addressed some of these issues.

6.58 We believe that Indian and Northern Affairs can help the boards to carry out their functions if it develops a way for boards to share information with each other regularly and receive updates on federal expectations and recent legal rulings and interpretations. Yet the Department has not made sufficient effort to ensure that a means of sharing information is in place.

6.59 **Recommendation.** Indian and Northern Affairs Canada should work with the boards under the *Mackenzie Valley Resource Management Act* to identify best practices and to assess training needs and provide for them, where appropriate.

6.60 **Recommendation.** Indian and Northern Affairs Canada should work with the boards under the *Mackenzie Valley Resource Management Act* and other boards in the Northwest Territories to develop a permanent process for sharing best practices and solutions to the challenges they face.

Department's response. The Department has already met with some boards to discuss outstanding issues (for example, best practices, training needs, etc.) and has developed a process, which includes the NWT Board Forum, for ongoing dialogue to resolve those issues. This will become an ongoing agenda item at the next NWT Board Forum, scheduled for fall 2005.

The Department will research and compile, as a starting point, best practices of other institutions of public government or expert organizations. The Department will prepare a preliminary report by fall 2005.

The boards and government will utilize the NWT Board Forum as a key vehicle for discussing best practices and to assess training needs. The Board Forum meets regularly during each year. The Department expects that changes to the boards' operations resulting from these discussions will start to be reflected in 2006–07 strategic, business, and expenditure plans of the boards.

Renewing the Department's role

The Department needs to hold the boards accountable for managing the process

6.61 The Mackenzie Valley Land and Water Board, the Sahtu and the Gwich'in land and water boards, and the Mackenzie Valley Environmental Impact Assessment Board were all created by federal legislation and are wholly funded by the federal government. The Minister for Indian and Northern Affairs also appoints all board members.

6.62 The boards are required to produce audited financial statements of their operations each year, and they do. Beyond that, the annual reports of each board contain little information to demonstrate the board's accountability for managing their responsibilities in the best interests of the residents of the Mackenzie Valley and all Canadians. Nor has the Department requested that they do so.

6.63 The Department has the responsibility to request such accountability reporting from the boards, because the federal government funds them through flexible transfer agreements. Under the Policy on Transfer Payments, the federal government calls for a results-based management and accountability framework. Specifically, it calls for a written agreement between the department and the recipient that identifies the expected results. Furthermore, it requires the recipient to account for and report on the results actually achieved. It also identifies the flexible transfers Indian and Northern Affairs uses for funding the boards as being covered by this policy.

6.64 These boards are not accountable for decisions they make when acting in a quasi-judicial capacity.

6.65 One vehicle for demonstrating accountability for results is an annual report. A good annual report provides information that stakeholders can use to hold management accountable for performance against the organization's responsibilities. A good report also indicates what is working and what is not.

6.66 The Smart Regulation report provides further support for such an accountability framework:

> When taking regulatory action, regulators should announce the results they wish to attain, the manner in which they intend to measure them, as well as when and at what frequency they will report on them. They must demonstrate their progress in achieving these results and be prepared to modify their approach if necessary. Evidence of performance is essential to sustain public trust.

6.67 Annual reporting to the Minister could be, for example, the vehicle whereby a board establishes and reports on the kind of service any applicant or intervener should expect to receive and how well the board is meeting those standards. In effect, it could become an accountability report that includes information on finances and on the way the board manages its responsibilities for the process.

6.68 **Recommendation.** Indian and Northern Affairs Canada should require that boards include in their annual reports to the Minister information not only on the board's financial performance but also on the way they manage their responsibilities for the process.

Department's response. All boards currently report on their financial performance annually.

The Department will continue discussions with the boards to implement changes to their reporting requirements to reflect not only their financial performance but also on the way in which they manage responsibilities for the process. Changes to the boards' reporting documentation will be evident by the 2005–06 reports.

This initiative will be linked to the development or improvement of strategic plans.

6.69 **Recommendation.** Indian and Northern Affairs Canada should require that reporting on financial and non-financial performance begin with the annual reports for 2005–06 and the Minister should make the reports public.

Department's response. Discussions regarding changes to the reporting requirements are already underway. The Department will work with the boards to expand and strengthen the content of the annual reports. Initial changes will be evident in time to be reflected in the 2005–06 annual reports.

Good reporting begins with a clear understanding of the accountability relationship

6.70 Before the boards can develop appropriate accountability reports, there is a need for clear direction from the government on the roles and responsibilities of the boards.

6.71 The Act provides a start; it indicates that the objective of the Mackenzie Valley Land and Water Board is to regulate land and water use to provide optimum benefit to residents of the Mackenzie Valley and to all Canadians. It also specifies that the Mackenzie Valley Environmental Impact Review Board is to protect the environment from significant adverse impacts of development and to protect the social, cultural, and economic well-being of people in the Valley.

6.72 These objectives represent high-level outcomes of the Act. They are primarily the responsibility of the Department and are difficult to report against except through periodic evaluations. Moving from these high-level intentions to an operational level means developing a working management framework for the boards' operations. Such a management framework would require a clear statement of the boards' roles and responsibilities. It also would require strategic plans that include annual operational plans that describe how the boards are to carry out their responsibilities and appropriate indicators to hold them accountable for doing so.

6.73 The American Society for Quality defines strategic planning as "the process by which an organization envisions its future and develops strategies, goals, objectives, and action plans to achieve that future." We expected that with the creation of these boards, or relatively soon after, the Department would have provided direction on their roles and responsibilities and the role of strategic planning in reporting performance. But this was not the case.

6.74 We found that the Review Board, on its own initiative, has made some progress by developing a strategic plan that includes possible performance measures and recognizes the need to develop service standards.

6.75 Demonstrating performance could include establishing and reporting against service standards. It could also include working with such organizations as the American Society for Quality or the International Organization for Standardization to develop service standards and demonstrate levels of quality achieved. In this regard, we do not mean measures that relate to any quasi-judicial functions of the boards.

6.76 **Recommendation.** Indian and Northern Affairs Canada, in consultation with the boards under the *Mackenzie Valley Resource Management Act*, the Aboriginal communities in the Northwest Territories, and other stakeholders, should clarify the roles and responsibilities of the boards.

Department's response. Bilateral discussions on roles and responsibilities with some of the boards are already underway and replies to our invitation from the others are pending. In addition, this will become an agenda item for the NWT Board Forum. The Department will also initiate discussions with the representatives of groups with settled claims to ensure that roles and responsibilities reflect the claims agreements and legislation. This is an ongoing process of updating, renewal, and evolution. First results will be evident by April 2006.

6.77 **Recommendation**. Indian and Northern Affairs Canada should work with each board under the *Mackenzie Valley Resource Management Act* to develop a strategic plan that includes a statement about the board's mandate, vision, and mission; strategies for achieving them; and measures to demonstrate performance.

Department's response. Discussions with some boards on the development of, or strengthening existing, strategic plans is already under way and will continue. Other boards will be contacted for bilateral discussions. In addition, this will become an ongoing agenda item for the NWT Board Forum. All the boards will be requested to develop a strategic plan by April 2006.

The Department recognizes that strategic plans and performance measurements are not static and improvements will be ongoing.

6.78 **Recommendation**. Indian and Northern Affairs Canada should include in its *Report on Plans and Priorities* for 2005–06 a section that indicates how it plans to address the recommendations in this chapter. In subsequent performance reports, it should demonstrate its performance against these plans.

Department's response. The Department will include in its Report on Plans and Priorities (RPP) an action/work plan that indicates how it plans to address the recommendations in this chapter and report on progress. The action/work plan will be completed by April 2006. Future RPPs will report progress and achievements.

The Department needs to establish an effective working relationship with the boards

6.79 We observed little formal communication between the boards and the Department to identify common challenges and find common solutions, as reported earlier in the chapter. We saw little indication that the Department, whose Minister has the authority to consult with the boards in providing policy direction, has worked with the boards to develop a shared interpretation of key terms in the legislation. We saw no indication that the Department has made any effort to establish reasonable standards for water quality. We also saw no evidence of any kind of accountability reporting except for financial reporting.

6.80 Indian and Northern Affairs Canada has a responsibility to improve the state of resource management in the Northwest Territories. In our view, the Department needs to strengthen its relations with the boards in order to meet its responsibilities over the coming decade. This includes exercising its authority under the *Mackenzie Valley Resource Management Act* and consulting more closely with the boards.

6.81 We noted that the Department has made some effort in the last two years to improve its relationship with the boards. For example, it established a Board Relations Secretariat in Yellowknife. The Secretariat's purpose is to improve communication between the Department and the boards, to help resolve operational issues and interpretation differences that arise in implementing the Act, to administer board appointments by the Minister and funding arrangements for the regional boards, and to provide day-to-day advice and support to the boards.

6.82 We saw, however, no evidence of the Department going beyond developing a relationship at the operational level. For example, we saw little effort by the Department to develop an ongoing relationship among the chairs and executive directors of the boards and senior officials in the Northern Affairs branch of the Department.

6.83 **Recommendation.** Indian and Northern Affairs Canada should establish an ongoing process of consultation between the heads of the boards under the *Mackenzie Valley Resource Management Act* and the senior officials of the Department.

Department's response. The Department has requested that the boards increase and regularize their consultation with the government on key issues and will undertake bilateral meetings as required. In addition, the NWT Board Forum will be utilized as a key vehicle for ongoing consultation with the heads of the boards and senior departmental officials.

Conclusion

6.84 We believe that Indian and Northern Affairs Canada is not adequately managing its responsibilities that form a key part of the process for approving the development of non-renewable resources in the Northwest Territories.

6.85 It has not yet exercised its authority under the *Mackenzie Valley Resource Management Act* to provide adequate direction to the public boards that manage the application process for the development of renewable and non-renewable resources in the Mackenzie Valley. Such direction would ensure that the details to make the process run smoothly are in place. These include standards for water quality and guidance on key terms in the legislation.

6.86 The Department has not taken steps to ensure that the boards have the appropriate management foundation and ongoing assistance to help them carry out their responsibilities.

6.87 The Department also has not obliged the boards to comply with the requirement to be accountable for managing their responsibilities under the process in the best interests of the residents of the Mackenzie Valley and all Canadians.

6.88 These matters are important for two reasons. First, while we recognize that the boards and the federal government need time to iron out their working relationships in this relatively new process, the continued absence of policy direction in crucial areas, the lack of support for effective knowledge building, and the lack of an appropriate accountability model have put the investment climate in the Northwest Territories at risk. Second, in the current negotiations to devolve federal responsibilities to the territories, control over non-renewable resources is high on the agenda.

6.89 In the *Indian and Northern Affairs Canada and Canadian Polar Commission Performance Report for the period ending March 31, 2003* the Department noted that the investment climate in the North is influenced by the efficiency, transparency, and fairness of regulatory frameworks and the new powers of public institutions to manage land and resources. It also noted the concerns expressed by industry that uncertainty, instability, and inefficiencies are constraining investment and limiting business opportunities. We believe that implementing our recommendations will contribute to remedying these concerns.

About the Audit

Objectives

The objective of the audit was to determine how well the federal government is managing its responsibilities associated with the process for the development of non-renewable resources in the Northwest Territories, other than the Inuvialuit Settlement Region.

Scope and approach

We audited the process that was established by the *Mackenzie Valley Resource Management Act* (1998), and focussed mainly on Indian and Northern Affairs Canada.

In particular, we looked INAC's responsibilities that form part of the process beginning with the application for a land permit and/or water licence and ending with the decision on the application.

We conducted the audit mainly through interviews of officials and review of documents from the departments involved, primarily Indian and Northern Affairs Canada. We also reviewed publicly available documents associated with resource development applications. In addition, we interviewed key stakeholders, including representatives of the mining companies and industry, the Government of the Northwest Territories, and Aboriginal groups.

This process for development involves four boards: the Mackenzie Valley Land and Water Board; its two panels, the Gwich'in Land and Water Board and the Sahtu Land and Water Board; and the Mackenzie Valley Environmental Impact Review Board. We did not audit any of the boards' practices, procedures, or internal administration associated with their responsibilities; nor did we examine the roles that other federal departments and agencies play in the process. We did however interview officials from the boards to understand how Indian and Northern Affairs is managing its responsibilities.

Criteria

We expected that Indian and Northern Affairs Canada would manage the process by the following:

- communicating the process to stakeholders in a way that is timely, transparent, understandable, and predictable;
- conducting periodic reviews and making adjustments where necessary;
- ensuring that the process has timelines that are clear, managed, and reviewed;
- ensuring that the process has service standards that are clear, managed, and reviewed; and
- developing and managing a risk management process.

We expected that Indian and Northern Affairs Canada would manage the need for appropriate capacity in all steps, including

- conducting periodic reviews to determine if there are any gaps in resources needed to carry out its responsibilities, and
- preparing and implementing a plan for filling any gaps.

We expected that Indian and Northern Affairs Canada would ensure accountability for the organizations involved in the process, including having

- a clear understanding by all federal entities involved in the process of their roles, responsibilities, and accountability relationships;
- a clear leadership role for the process in the government;

- an appropriate accountability framework between the various organizations involved in the process and with Parliament;
- a clear understanding by participants that the process is fair; and
- a process for assessing performance.

Audit team

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